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Live Stock Numbers and Values.

Most kinds of farm animals are increasing in number, as shown by the census completed the first of the year, as the result of careful investigation of Government correspondents and field agents. The only exception is in sheep, which show a considerable reduction from the figures of the previous year.

The following show in round numbers the figures for some of the Eastern States: Maine, horses, 136,000; milch cows, 180,000; sheep, 270,000; swine, 64,000. New Hampshire, horses, 63,000; milch cows, 130,000; sheep, 76,000; swine, 50,000. Vermont, horses, 20,000; milch cows, 285,000; sheep, 214,000; swine, 90,000. Massachusetts, horses, 115,000; milch cows, 190,000; sheep, 41,000; swine, 72,000. Rhode Island, horses, 16,000; milch cows, 25,000; sheep, 8,000; swine, 12,000. Connecticut, horses, 58,000; milch cows, 131,000; sheep, 33,000; swine, 46,000. New York, horses, 637,000; milch cows, 1,731,000; sheep, 185,000; swine, 675,000. Pennsylvania, horses, 607,000; milch cows, 1,000,000; sheep, 885,000; swine, 980,000. For the whole country the milch cows numbered 17,572,000; sheep, 127,331,000; swine, 47,320,000.

The valuations offered some peculiar features. Milch cows are valued the highest in Rhode Island at \$41.70 per head average. The low average valuation of \$34 per head in Vermont would suggest the tendency might be a profitable business between the States. In Massachusetts the valuation per head is \$36.34. The lowest valuation is \$17.27 in Arkansas. No doubt, the quality to a considerable extent matches the price, as dairy cattle have as yet received but little attention in the Southwest. The highest valuation of sheep is \$4.19 in Connecticut, while in Arkansas the valuation is only \$1.00, and about the same in several other Southwestern States. Swine vary from \$11.28 per head in Massachusetts to \$3.50 per head in Arkansas. In fact, prices of all live stock are now lower in the South and Southwest than in the distinctly Western States, formerly the abode of cheap live stock.

The Sheep Question Again.

It may be true that in certain localities, near large cities, or along the more frequented highways of New England, the ravages of dogs and some forms of disease make it practically unprofitable to attempt sheep farming, but it may well be doubted if this applies to much the larger area of our Eastern States. For example, the writer has kept sheep uninterrupted for over twenty years, and during all that time no disease has ever appeared among them, no dogs have ever worried or killed them, nor has one ever been caught by wild beasts. And yet the farms there under the shadow of one of Vermont's highest mountains, where the sheep roam at will in dense, primal forests in which occasional bears are caught. And it also seems that as many dogs of various degrees roam hereabout as in other localities.

If conditions are so favorable here, why may they not be in hundreds of similar places throughout our New England towns? In fact, it is not a somewhat threadbare tradition and of doubtful veracity—this of so much damage done to sheep in former years. In any event may it not be that while some time in the past there have been epidemics of sheep-killing dogs, the virus has exhausted itself, and now farmers may return safely to the old occupation?

As to the expediency and profit of sheep raising there can be no doubt. The writer has learned that no corresponding time and care given to cattle bring so large returns, to say nothing of the fact that a fair percentage of their keep is gleaned from the forage that other stock leave untouched. As to extra expense in fence building, the one remedy for unruly sheep is—don't keep too many. A large flock tends to wildness and adventure. A small band will retain the domestic habit and prefer to stay near you. Keep them comparatively tame and they are a constant source of pleasure as well as profit. GEORGE A. SMITH, Franklin County, Vt.

Connecticut Farm Items.

The present winter, while not so cold as the one of 1904, has been well supplied with snow most of the time. Ice houses have been filled with ice of excellent quality, ranging from ten to fourteen inches in thickness. Stock seems to be wintering well, although some farmers complain that their cows are producing but a small amount of milk. Bear in mind right here that care and feed are important factors in the production of milk. Farmers are getting their year's supply of wood. The buck saw

does not play as important a part in this work today as it did twenty years ago. Now the farmer hauls his year's supply of wood at the door, and the man with the gasoline engine does the rest. This is much easier, quicker and cheaper than the old method.

Those farmers who held their apples here for higher prices are finding themselves no better off than those who shipped their fruit early in the season. Local prices rule but little if any higher than they were last fall, while the shrinkage in holding them is considerable.

Eggs have been very scarce and high for many weeks and are still bringing thirty cents per dozen.

Veal calves are worth 40 cents live weight, but comparatively few are being fattened, as most of our farmers are selling their milk, and the calves are sold when only a few days old. Several deer have been seen in this vicinity recently, and farmers are beginning to fear that they will

Governor addressed the gathering, speaking of the difficulty of securing efficient, honest public service unless the officials are supported by intelligent public opinion.

At the close of his remarks a vote of thanks was unanimously extended to the Lieutenant-Governor for his eloquent address and his assistance in rendering the gathering one of the most successful of the year.

A Barn Silo.

It was built in rectangular form, with rough boards nailed horizontally to the studding. A band was taken from the mow, and the large girls of the barn six feet from the floor were utilized on three sides, one being put in on the other side to correspond with them; thus making the studding under the girls six feet long while that above was nine feet. It was out in this way to economize space. If room is plenty they can be put up the whole length, bearing against the inside of the girls. After one thickness

the second year there was \$3000 profit, after which the place was in shape to net \$4000 to \$5000 profit a year.

Dairy cows and clover seem to have been the mainstay of Mr. Rennie's system. A herd of thirty-three cows was kept. Part of the farm was worked on the three-year rotation, and the rest of it on the four-year course. Corn was followed by oats, and then the land was seeded to clover, clover seed being sown with the oats, mixed with a little timothy and alfalfa. All the cows were tested and the milk weighed, so that the poor ones could be weeded out. The average production of milk under this plan increased greatly. The main dependence for winter feed was on ensilage. Some of the milk was sold at retail at five cents a quart and the rest made into butter at twenty-five cents a pound or sent to the cheese factory. About 150 pigs were raised on the farm and dairy refuse.

In the third year of the rotation, the clover hay was got off in June, and in a

stated on the top of a hill, away from any house, and the grounds cover about three acres. The surrounding fields are devoted to the raising of onions, spinach and other like crops, and last year a large area was devoted to the raising of mangel beets for the hogs.

The bulk of the feed given to the pigs is city swill, which is brought in Mr. Dean's own team from the city which is five miles away. Mr. Dean was enthusiastic over the amount of profit to be gained from the raising of hogs for the average farmer, for he said that the animals would utilize many things which would be waste if they did not eat them. Mr. Dean says he sees no need of keeping fancy stock, and all the hogs here are common grades.

There are at the piggery large iron kettles which are used for the cooking of swill. Only fattening hogs are given the cooked swill, except in the cold weather, as it is thought that the others do better without cooked food. The grain is mixed into the

three times a day from a mixture of six hundred pounds bran, four hundred pounds corn meal, one hundred pounds of meal, one hundred pounds cottonseed meal. Young stock are fed ground oats, corn meal and bran mixed by equal weight, and fed as they need, according to age.

Paul Hengerveld Burke De Kol now heads the herd, and by experts has been called the finest De Kol bull ever led into the show ring. He has great style and quality, and while very handsome, combines the blood of five of the world's greatest cows, giving the wonderful combined average of twenty-eight pounds 6-6 ounces butter per week. He now has practically thirty-five first prizes to his credit, defeating three times the only animal ever winning a place over him. The cows of this herd are a living picture of those beautiful cattle, bred in Holland, and yet better bred and developed by the master breeders of America. They have a herd average of 4.30 per cent. butter fat. J. H. MEAD.

The Why and How of Maple Sugar.

In obedience to the law of gravity, the rain that falls upon a tree runs down the trunk, or drips from the branches. But, contrary to the law of gravity, the water in the ground flows upward as sap through the roots and inner bark to the very topmost limb of the tallest tree. This apparent conflict of natural laws arrests attention. What makes the sap climb the tree?

Apparently it ascends like the oil in the lamp wick, to support the flame; but the sap in the maple tree, and presumably in other trees, flows upward abundantly, only at a particular season and at particular states of the weather. All makers of maple sugar know that the sap flows best when there is frost in the ground, on a thawy day, with the wind from the Northwest or West. On a cloudy day, with the wind in the South or East, it will scarcely "run" at all.

It is generally supposed that the sap of the maple tree is water, holding in solution a small quantity of sugar the same as the blood of the beet and the juice of the cane; that trees take up in their sap the materials necessary to build up their structures if they are to be found in the soil where they grow. Some other trees besides maples are supplied with sugar in their sap, but the root, or hard maple, is the one from which sugar and syrup are obtained in the largest quantity by boiling the sap.

The maple is the most widely distributed of our native trees; it is indigenous in all the Northern States, and will grow on the alkaline lands, and arid plains of the West almost as well as the cottonwood.

The enemies of the maple are the cottony maple scale, or bark louse; the leaf spot disease; the green striped maple worm; and the maple-tree borer. The former can be destroyed by spraying with kerosene emulsion, the green-striped worm by Paris green, but for the borer (the worst plague of them all) there does not appear to be any remedy. J. W. INGHAM.

Vermont Farm Notes.

As winter, or the season for feeding stock, commenced unusually early, a large amount must have been made in the supply of fodder, but I hear of no shortage as yet and of but little call for hay, so it is to be hoped there is sufficient for all purposes quite in contrast with a year ago, when there was hardly enough to get through the winter with.

Farmers have been quite busy all winter with work upon the farm or road. There seems to have been more than the usual amount of logging done. There is now a good demand for almost all kinds of timber for various purposes, at paying prices, and a considerable amount is being cut, drawn to the mills and sold in the log.

I think this is quite general over the State and I presume other States as well, and the cutting of so much timber is creating some anxiety as to what the outcome will be. The supply, of course, must be fast disappearing, and what then will be the consequences is the question. Farmers should preserve and properly care for the young growing timber for future use.

With the coming of March spring will be near at hand and farmers should be in readiness for what is to follow. With such good weather and roads the usual winter work should be completed and all things in readiness for the spring campaign.

Of course the general plans for the season's work were perfected long ago, but there is always something that needs attention and this should be given so there need be no unnecessary delay when the busy days of work are at hand.

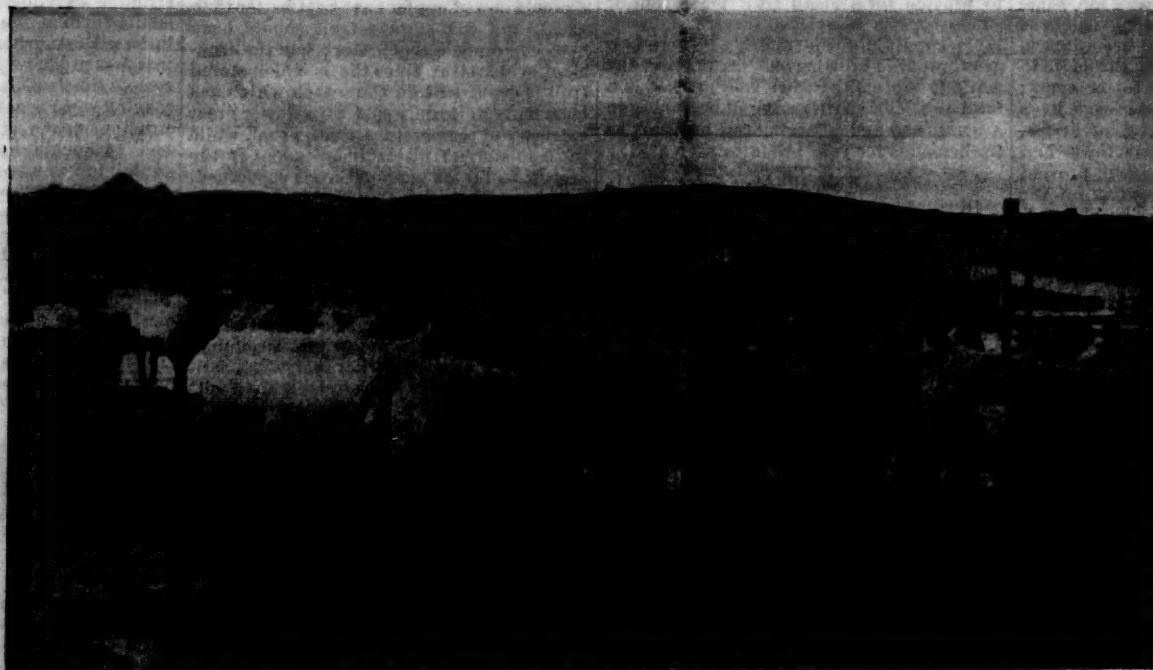
Everything for maple sugar making should be in order for the first runs of sap, which are usually the best; the farm implements and machines should be in condition for use and the seeds for sowing and planting selected and at hand. Franklin County, Vt. E. R. TOWLE.

Among the Farmers.

The keeping of accounts should be more general among farmers. I kept accounts with regard to each of my cows and found that some of them did not pay their way.—Herbert Sabin, Amherst, Mass.

Nothing is necessary in the world to stop a downward trend of industry in this country but some comprehensive machinery through which every man as fast as he gets out of work can be fed back to the land and planted there, where he will become again a worker in a productive field of industry, and a consumer as well.—George H. Maxwell, St. Louis, Mo.

Hot and cold water in sink and bathroom are as necessary to the farm house as to any other. A well-kept lawn in front of the house helps to make a farm attractive, and life on it pleasant.—E. P. Birdseye, Middlesex County, Ct.



SHEEP BELONGING TO THE WELL-KNOWN I. C. LIBBY FLOCK, FAIRFIELD, MAINE. Prize winners at numerous agricultural fairs in New England. Illustrated through co-operation of Commissioner A. W. Gilman.

damage their future crops, as these animals have no fence limit, but roam about where they please. These animals are protected by State law, but how is the farmer protected from their ravages?

Colds and grippe are very prevalent in this section this winter and many are prostrated by them. The doctors are kept busy attending to their numerous patients. A curious story comes from the town of East Hampton. A large pile of sawdust was dug into by parties who wanted to get a supply. As the outside of the pile was frozen hard and covered with a thick coating of snow and ice, they opened a tunnel into the pile, where they found the heat was such as to cause them to perspire freely—in removing the sawdust they uncovered some high huckleberry bushes, which were found to be in full bloom. Many people have visited the place for the purpose of examining this curious phenomenon. J. P. L. Columbia, Ct.

Farmers' Midwinter Meeting.

The Needham Farmers and Mechanic Association held their annual midwinter all-day meeting Feb. 14, at Odd Fellows' Hall, Wellesley, a representative gathering of members from Needham, Wellesley, Sherborn, Dover and Natick being present, numbering some 125 persons. The morning session opened with President Andrew J. Whitney in the chair.

The subject for discussion was cattle raising and farming in the West. Mr. Walter B. Robinson was introduced and gave an unusually clear and interesting account of some experience on the Colorado range during the season of '93 and '94. Two of the most severe consecutive cold winters on record in that section was experienced during those years. The losses of all cattle raisers were most heavy, the company which he represented losing nearly seventy-five per cent. of their entire herd, and after the discouraging round up in the spring of only twenty-five per cent. of their cattle, it was decided to abandon the enterprise. This required some four years, and later developments during this period proved to him conclusively that with ordinary winters and under the usual conditions, the business would be highly profitable. His description of branding the cattle, the semi-annual round-up and the Western cow boy, was appreciated by an attentive audience.

Mr. Richard Favor, the second speaker, also spoke from actual experience, describing the large cultivated tracts, the method of plowing, harrowing, etc., and the crops of corn and potatoes which would seem incredible to farmers in the East. He spoke of the feeling among many Western settlers, native of our New England States, that they still looked upon the East as their home. The address was listened to by an appreciative audience, who journeyed with the speaker to the far West and were again safely landed back in New England.

A bountiful collation was served in the upper hall by the banquet committee, previous to the afternoon session. The guest of honor for the afternoon was Curtis Guild, Jr., Lieutenant-Governor of Massachusetts. After an informal reception, the Lieutenant-

of boards had been nailed to the studding, tarred paper was laid over it, and another thickness of boards nailed on, breaking joints carefully.

The floor is on a level with the feeding floor and is made with boards and tarred paper in the same way as the walls. This silo had a surface of 140 square feet, was seventeen feet deep and was built at a cost of \$35, aside from the labor which, as the saying is, didn't cost anything, for I did it myself. This silo has since been enlarged so that it now has a surface of two hundred square feet. The same lumber, however, was used as far as it would go, and the silo is apparently good for several years yet. This method I think is more expensive, for material, than that of building with a single layer of matched boards, but I believe it to be more durable and it affords more protection against air and rats, and any farmer who has the least skill with tools can build one. The boards should be planed on one side. Albion, Me. OTIS MARDER.

Vermont Dairy Matters.

The butter market is in a most encouraging condition for those who are making it. Prices for several weeks have remained at about 35 cents a pound for the best, in our local markets, with the prospect that it will be quite a little time yet before the supply—at least of new-made—will be sufficient to reduce prices to any great extent.

But comparatively few of the farmers are in a condition to be benefited by these good prices, as there is not so much winter dairying around here as there used to be. The practice has been on the decline for several years, but the dairy situation last winter and spring when the markets became fairly demoralized as the result of an oversupply of cold-storage butter when the new make came into the market, this had something to do with the further decline of winter dairying, at least, in this part of the State.

The prospect now is that the markets will be well cleared of old stock by the time there is sufficient of the new make for current use. There is butter now being made, but in a few weeks the amount must materially increase when prices may be expected to decline.

Those having new milch cows are, of course, feeding and caring for them well, and will get a fair return, although the grain feeds are still high. E. R. TOWLE, Franklin County, Vt.

Improving a Large Farm.

The well-known difficulty of managing a very large farm at a satisfactory profit has attracted some notice to the results secured by Superintendent William Rennie in his supervision of the farm owned by the Bath-burn Company of Des Moines, Ont. The property includes about six hundred acres, most of it rough land underlain with rock. Before 1901 the company had been losing from \$5000 to \$6000 a year on the farm. When Mr. Rennie took charge, he reported that it would take three years, at least, to put the farm on a self-supporting basis. The first year saw a deficit of \$500, but on

week or two the sod was turned under. The stalks and roots of the clover provided the substance for the crops of the following seasons. The plowed land lay until fall rotting with sod, being helped by rolling and harrowing, and manure was applied in the fall.

Quick Cow Treatments.

Cattle owners are warned to go slowly in having anything to do with the so-called bovo-vaccine treatment. A New York drug firm advertises the treatment as a prevention of tuberculosis, but Dr. Peters of the Massachusetts State Cattle Bureau and Dr. Pierson, State veterinarian of Pennsylvania, agree that the proposed plan is of very doubtful practical value and at best needs further testing before it could possibly be recommended for general use. The treatment seems to be deserving of some attention from the experiment stations, and possibly something might be developed which would prove of real merit.

The vaccine, which is supposed to be like that employed by the German scientist, Von Behring, is nothing more or less than dried bacilli, of precisely the sort that are most frequently found in human tuberculosis. These organisms are injected into the blood and carried to all parts of the system. They might even be found in the milk when the treatment is applied to cows. Hence the need of caution with experiments of this kind. The theory is that the system is accustomed to these weakened germs and soon becomes able to resist these unwholesome germs, which cause the disease of tuberculosis. Some experiments have shown results pointing in this direction, but according to Dr. Peters nothing practical has been accomplished and it would be unwise for cattle growers to undertake any such work on their herds.

A Large Rhode Island Piggery.

The largest piggery in Rhode Island, and perhaps in all New England, is that in Cranston, R. I., which is owned and conducted by town councilman John M. Dean. Mr. Dean has a large and beautifully improved farm in Cranston, where he has built a handsome residence, and planted a large tract into a unique "Park," where many suburban homes have been built. Mr. Dean is, besides town councilman of Cranston, a large furniture dealer in Providence, and owns a large amount of real estate, some of it in Florida. The piggery is a set of buildings, built many years ago, and used for the extensive raising of hogs for a long time. A few years ago the whole establishment was burned and hundreds of hogs lost, but the buildings have been replaced by better ones now.

The pig raising last year amounted, so Mr. Dean said to the representative of this paper the other day, to about a thousand pigs. There are four long buildings, each two hundred feet long and thirty to forty wide, and in these the pigs are arranged, and ten by twelve feet in size, each with an out door exercise space like the cages of a menagerie. Each pen accommodates five or six pigs, or a smaller number if they are large, and sometimes a litter of pigs with a sow. The establishment is lo-

swill, and the whole is fed as a common ration. In good weather a number of the brood sows are allowed the freedom of a large yard, which is fenced off with wire fence. This is shaded by small trees.

Aside from the inevitable fragrance of a place where a thousand hogs are kept and fed in boiled swill, the piggery is an interesting place to visit, and the cunning piggy-wiggies, with their pink skins and insatiable noses, are well worth going to see. Cranston, R. I. W. E. BRONX.

Marble Valley Stock Farm.

The old Mead homestead has been owned in the family for a period of 135 years. Col. James Mead and wife were the first white people to come to the section now the town of Rutland, Vt., finding their way through the unbroken forest, fording the river of the Otter Creek, at Center Rutland, where they were soon surrounded by a throng of savages, but Mr. Mead, the pioneer, smoked the pipe of peace. Through the hospitality of the Indians their first night was spent in a wigwam. The present occupant of this farm, always owned and kept in family descent, is of the fifth generation, and the seventh generation is to be seen here.

This fine old New England homestead is surrounded by some of the most picturesque scenery in all New England. Castle Hill and Sugar Loaf stand in the background in the west, while Killington, the second highest peak in the Green Mountain range, with Old Pic, lift their summits heavenward in the east, and every generation have fully realized the fullness of the Biblical phrase, "And the mountains shall bring peace."

Attained in this beautiful, lime-stone region, a warm valley, the season is from two to four weeks earlier in spring, and later in fall.

On this farm is kept one of the finest kinds of Holstein-Friesian cattle in the country. Only the best are retained. The herd has become noted, for each year they come prominently before the public, being shown for two months at the fairs through New York State, New Jersey and Pennsylvania, where they have won over eighty per cent. of all first prize at the best fairs held in those States. These cattle are beauties to look at; typical of the breed, showing their fine breeding and carrying the idea of high quality in their conformation. They are great milkers, as well as producing the most healthy milk for food purposes. Two members of this herd won the first and second prize for production of butter at the Albany County Fair, in Albany, N. Y. Under strong competition, the test having been conducted by Mr. H. S. Mattison of the Department of Agriculture, Albany, N. Y., great care is taken at all seasons of the year in the careful handling of these cattle, to preserve their health by using good, succulent feed, keeping them in well-ventilated stables, and through every experiment mind of one who loved the beautiful black and white.

At this season of the year the whole herd are watered twice a day, and all have three meals a day. The milking stock are fed ensilage morning and night, hay or corn fodder at noon, with two quarts of grain

Dairy.

Butter and Cheese Still Higher.

Butter is in extremely light receipt, with little on sale beside storage. Quotations are still higher, but a little below the extreme New York quotations. The high prices are of little advantage to producers on account of the small output, and the encouragement which is given to the use of the various substitutes.

The butter commission men complain of extreme dullness of business caused by the high prices prevailing. The opinion prevails that not only is the quantity of butter used somewhat reduced, but quite a large class of trade is accepting the various substitutes. The demand for the low grades of butter is far greater than usual, and indicates that many who commonly use choice butter are finding themselves able to pay for only the cheaper kinds. It is thought that many of the middle-grade boarding houses and hotels who commonly buy creamery and dairy goods are now using considerable imitation and factory butter.

With a continued active demand from nearly all sections and steadily reducing stocks the cheese market is in a strong position, with the tendency of prices still upward. Official quotations advanced one-fourth of a cent more this week on all grades of full cream cheese and the advance was fully warranted by the general conditions. Buyers so far have followed the advancing market with little objection and the market is certainly in healthy position, with no question but that all the cheese available will be wanted, with, in fact, fears expressed that should trade keep up as active as for the two or three weeks there would be an actual scarcity of old cheese before the close of the season. Skims in very light remaining stock, with scarcely any fine skims to be found.

Latest cable advices from the principal markets in Great Britain to George A. Cochran give butter markets as unchanged in value. Receipts are large from the Antipodes and buyers ask concessions which receivers generally resist, as receipts after this will be lighter. Finest grades of Danish, 23 to 24 cents; New Zealand, 21 to 22 cents; Australian, 20 to 21 cents; Argentine, 20 to 21 cents; Russian, 20 to 21 cents. Under grades continue scarce. Cheese markets show no improvement, and to effect sales concessions are necessary. Holders generally anticipate improved market conditions. Finest American and Canadian, 10 to 11 cents.

The oleo men in Pittsburg have been having a strenuous time with the authorities lately, numerous cases of arrest and fine having occurred. The high price of butter seems to be a temptation too strong to be resisted owing to the big profits in selling clear oleo without branding or paying a tax. It is said that some of the dealers who have been repeatedly arrested and fined \$100 each time have made more than enough out of the illegal business to show a considerable profit over all "expenses."

Agricultural.

How the Devon Breeders Organized.

At the suggestion of many breeders, a meeting was called to assemble in Pittsburg, March, 1881, and there was formed the Devon Cattle Club. Prominent breeders were present including E. D. Hicks of Tennessee; J. M. Miller, W. D. Wetmore, J. B. Longenecker and J. W. Dobbs of Pennsylvania; J. Buckingham, D. J. Whitmore, P. Palmer and F. W. Reed of Ohio; A. W. Rumsey of New York; J. F. Fish and Son of Vermont; L. P. Sisson of West Virginia. The first officers of the club were as follows: J. M. Miller, president; E. D. Hicks, vice-president; F. W. Reed, secretary. Executive Committee, J. M. Miller, E. D. Hicks, J. Buckingham, B. F. Peck, J. P. Fish, Edward Hungerford and L. P. Sisson.

At a subsequent meeting the committee to purchase the Devon Records reported that for a consideration of \$3400 they had purchased the records and office fixtures from Mr. J. Buckingham, the same to be known hereafter as the property of the American Devon Cattle Club. When Mr. Sisson was chosen secretary, the club office was removed from Zanesville, O., to Wheeling, W. Va., where it remained until 1900, when the office was moved to Newark, O., where it is still located, the officers of the club at present are: Dr. J. C. Morris, Philadelphia, Pa., president; J. Banker, Upperville, Pa., vice-president; L. P. Sisson, Newark, O., secretary and treasurer. The attractive farm and herd of President Morris were described not long ago in this paper.

Secretary L. P. Sisson has been identified with Devon cattle from his early boyhood days. His grandfather, Lewis Sisson, brought to what is now Ohio County, W. Va. (then Virginia) the first Devon bull ever in that section. This bull was bought from the noted herd of George Patterson of Skysville, Md. After the death of his grandfather, his father, J. E. Sisson, continued the breeding of Devons, getting his bulls at different times from Mr. Patterson, until his death, then from Mr. Patterson's successor, S. T. C. Brown and his son, Frank Brown, all of Skysville, Md.

J. E. Sisson also bought several Devon cows from the Patterson herd, from these cows he traced a great many now in West Virginia. After J. E. Sisson retired from active life L. P. Sisson still bred Devons up to the time he was chosen secretary of the club in 1880, since which time he has not bred any Devons.

Vegetable Trade Fairly Steady.

The potato market continues weak and over-supplied with no improvement in prices. Only choice lots bring as high as 45 cents per bushel in large bulk lots. Onions are plenty and not in very brisk demand, but prices hold about steady. The onion market has been managed well this year, the market having been fed just enough stock to keep prices firm. The stock in western Massachusetts has been kept by large companies with good storage facilities who have not been obliged to ship until the onions were needed. Cabbages are plenty and at about unchanged prices. Squashes continue plenty, despite the lateness of the season but show no further gain in prices. Southern vegetables, especially string beans, are scarce and high.

Accounts from all parts of New York State show the stock of potatoes in farmers' hands still very large, probably larger than in many years past at this time of year, and in the districts some distance from the larger markets wholesale prices are as low as 20 to 25 cents per bushel. Many farmers are refusing to part with their crop at any such price, while others seem willing to realize almost any price. The gap between such quotations and the figures which are paid by the consumers in large cities is something tremendous and very suggestive of the disproportionate shares sometimes secured by the middlemen.

Hay Firm and Quiet.

The market for hay in Boston continues quiet and steady, and demand for the choice grades is sufficient to strengthen quotations slightly. Lower grades are dull, with prices unchanged. Rye straw is in quiet demand, and prices must be revised a little lower to cover range of actual sales.

The general condition of the leading markets indicates plenty of hay to meet the demand and no great surplus and no particularly large shipments on the way. Choice grades are selling promptly. Low-grade hay is everywhere dull. The general average of prices is practically the same as last week in Eastern markets. The average of the Western and Southern markets show a gain of a few cents per ton. The following shows the highest prices for hay, as reported for the Hay Trade Journal in the markets mentioned: Boston \$17, New York \$16.50, Jersey City \$17, Brooklyn \$16, Philadelphia \$15.50, Pittsburgh \$13, Buffalo \$13.50, Montreal \$9.50, Baltimore \$15.50, Nashville \$14.50, Richmond \$14, New Orleans \$17, Chicago \$13, Kansas City \$10, Minneapolis \$8.50, St. Paul \$8.50, St. Louis \$12.50, Cincinnati \$12.25.

Provisions Quiet and Steady.

Pork provisions hold firm and Western markets show some little advance. The only change in the local market is in hams, which in most grades are higher by a fraction of a cent. There is nothing in local conditions to affect prices, the total arrivals for slaughter being about the same as for the preceding week. The export market is fairly active.

Beef has been held at steady prices with the market fully supplied. Aivals for the week were 175 cars, which is rather less than usual for the season and a little less than last week. Lambs and muttons are selling at steady to strong prices and veals are firm. Poultry holds at steady prices, receipts continuing light and demand being somewhat reduced by the rather high range of prices.

Poultry Prices Firm.

Reported for this paper by S. L. Burr & Co.: "The receipts of poultry continue light and there is a strong tone to the market and prices remain practically the same as they were last week. Nearby chickens are selling from 15 to 20 cents according to quality; choice fowls are selling from 15 to 16 cents, common fowls 13 to 14 cents; ducks from 15 to 17 cents. As eggs have sold very well the past year at good prices, farmers will hold many of their fowls and pullets back for eggs and this will prevent considerable poultry from coming on the market, that otherwise would be shipped. The weather has been very cold in the West and with bad roads the receipts of poultry are very light at all shipping points, and we look for a continued good demand for some weeks to come on all kinds of poultry."

The scarcity of fresh poultry attracts some attention. Dealers reason that farmers are holding back their old stock, because of the high prices of eggs. Even a two-year-old hen will lay eggs enough to pay a profit when eggs are high in spring. Poultry and eggs have both been high for several years, and it is thought that poultry raisers as a class are keeping back more stock for breeding, in order to increase their flock and egg yield this year. It would not be surprising if a period of correspondingly low prices should follow within a few years the same as has happened in the past, and the same as occurs with nearly all farm products. High prices induce over-production and over-production brings about low prices. The scarcity of fresh poultry is made up to some extent by a good-sized stock of frozen poultry which the large packing houses kept over from last fall and early winter. These holdings are not at all excessive, and seem likely to go at good prices as long as the present scarcity of fresh stock continues.

Western advices are very firm, especially on fowls and prices at New York are held slightly higher in sympathy, but the demand is quite limited at the present. Fresh turkeys very scarce and the few coming are generally poor. Fresh chickens are nearly all coarse and starchy and of irregular value. Fancy large capons scarce and firm, but small and medium sizes sell slowly.

Horticultural.

Vermont Horticulturists Meet.

(Concluded from last week)

MARKET GARDENING FOR LOCAL TRADE. The Friday morning session opened promptly at 9.30 A. M. Market gardening, according to L. H. Sheldon, is a business one must grow into. Start on a small scale and develop your market and business together. The possibilities of developing home market is surprising. Grow good vegetables, but them up tastily and you will have no trouble in increasing your business. Advertise in local newspapers, taking space by the year, keep your customers informed as to what you have for sale and you will have no difficulty in disposing of it.

ASPARAGUS. N. E. Jack of Chateaugay Basin, Province of Quebec, thinks asparagus culture is not difficult if one has a suitable location, a light warm loam soil comparatively free from stones and well drained. Selection of varieties is dependent on whether the market wants purple or white stalks. Grow varieties least subject to rust. Palmetto and Argentinum seem to be quite disease resistant.

"THE GROWING OF PLANTS AND CUT FLOWERS." by G. E. Hunt of Rutland, was handled from the standpoint of the practical gardener. The florist's love for plants and cut flowers is two-fold as he grows them both for pleasure and profit. Carnations were considered the best all-round florist's flower. They were suitable for all kinds of work.

COLOR AND QUALITY.

"Sunshine," according to Rev. George W. Perry, is the physical force that furnishes energy for the building up of the tree and fruit. It gives the apple better color in the North, improves its quality and consequently its money value. We plant our trees far apart and keep the tops open in order to let the sunshine in. The commonly accepted notion that fruit trees planted on a northern slope are less subject to winter injury was not thought to be well founded. The writer would advocate warm sunny slopes, think the cold resistance of the buds is practically determined by the amount of sunshine they have received the previous season. Seasons in which we have a maximum amount of sunshine, all other conditions being equal, the fruit buds ripen up and are better able to withstand a rigorous winter. When the fruit lands of the Champlain Valley are better understood

Apples Higher in New York.

Apples are in rather moderate supply, and some dealers mention an improvement in demand. The market might be expected to improve somewhat in sympathy with New York, but prices are not notably higher this week, and few apples of the standard kinds are fancy enough to bring more than \$1. Many apples which were more than \$1. are really sold here as No. 2, and returns made on these basis. Even the selections of average orchards seem to be rather poor this year,

and appreciated they will more than double in value.

THE BERRY PATCH.

Mrs. Etta W. LePage thought that one of the important duties of the farmer was to provide for a small fruit plantation of sufficient size to at least furnish a liberal table supply for the family. There is a good profit in growing small fruits for the market, especially when this market is a local one. The writer advised beginning in a small way and enlarging the business as the demands for your products increased.

NEW IDEAS.

In speaking of the "Recent and important changes which have taken place in Fruit Growing," Prof. F. A. Waugh divided the development of pomology into three periods. In the first period a great deal of attention was given to description of varieties. The second period was largely devoted to the development of the practical phases of pomology, that is, to the planting and care of the orchard or small fruits plantation. The third and more recent development deals with the business end of fruit growing, that is, the selling of the fruit. This last phase of pomology is an important one because the price received depends so much upon the ability of the grower to present, pack and market his fruit, that it may almost be given precedence over all else, at least when it comes to dollars and cents. Cropping and double planting of orchards were considered desirable in the early management of the young orchard. Recent changes in marketing, especially with regard to packages, was discussed at some length. The bushel box and four quart basket for fancy fruit and markets were thought profitable to adopt.

SPRAYING FOR RESULTS.

Professor Waugh's address was followed by Professor Stuart, whose paper had been carried over from the day previous. The speaker thought that the chief factors militating against a wider use of fungicides were due to the natural aversion of the ordinary farmer to prepare fungicides; to inadequate spray pumps and nozzles; and, as a result of these combined factors, so little visible results are obtained as to lead them to regard the whole operation with skepticism. Experiments for the past two seasons at the Vermont Agricultural Experiment Station have evolved a method of making Bordeaux mixture, which is thought to lessen the labor of its preparation and at the same time insure a perfect spray mixture. It was thought that a better knowledge of fungous diseases in general, and in the preparation of fungicides would enable the fruit grower to more successfully combat diseases. We need to know what remedy to employ and at what particular time to apply it. One application made at the proper time is worth a dozen at the wrong time.

Of ninety-six circular letters recently received from fruit growers in Vermont only seven reported having sprayed at all. Of this number one sprayed four times, one three, one twice and four once. Twenty-five of the ninety-six reported apple scab in greater or lesser abundance, and more or less widely distributed throughout the State. If loss from apple scab is to be prevented this season, spraying will have to be more generally practiced than was done the past one. Spraying alone will not produce good fruit, but spraying in connection with good cultural conditions will generally give satisfactory results.

The presidential address of G. H. Terrill proved very interesting. The greater future usefulness of the society, owing to its recent grant by the last legislature of an annual appropriation of \$500, was dwelt upon at some length. The speaker thought one of the things most needed in Vermont apple orchards, especially in the best fruit sections is fertility. Legumes were advocated to increase humus and nitrogen content of soil. As a State we have many advantages as we can produce the finest late fall and winter apples, and, after producing them, we have an climate in which they will keep for a long time, thus giving us a better opportunity of holding our fruit until market conditions are favorable for its disposal. The speaker did not think the time would ever come when the markets for good fruit would ever become crowded beyond its profitable limit. Fancy fruit will always create a demand for more. W. STUART.

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and buyers are very particular on account of the abundant supplies from which they may select.

Not much is heard about the quality of cold-storage apples as yet, not many having been put on the market. Holders argue that common stored apples have kept better than usual, and cold-storage fruit should have kept correspondingly better; but the argument is doubtful since the common stored fruit is dependent on the season which has been more uniformly cold with fewer great extremes of temperature than usual, while the cold-storage fruit is independent of the season, as far as temperature is concerned.

The moderate improvement in the New York apple market is laid to the better demand from the West and South. Very likely the improvement is owing to the fact that much of the Western and Southern fruit is of very poor keeping qualities and is now past its condition or sold out. The injury to Southern oranges and vegetables also helps the apple market somewhat, as it reduces the amount of green stuff and fruit which ordinarily divide the attention of the buyers. Dealers, finding not much to be done in Southern stuff, are turning their attention more to apples and pushing their sales. The improvement in the New York market may be reckoned at about 25 cents per barrel as compared with the preceding week. Dealers are not at all agreed about the future of the apple market. Some who have stocks on hand, both cellar stored and cold storage, are selling as fast as the market will take them on the theory that conditions will be no better, while the expense of storage will increase. Others are confident that the Western and Southern demand will hold up strongly and that prices will certainly not go back. In that case they will have little risk by holding later and have a good chance to get better prices than those now ruling.

Produce Notes.

The onions shipped from Boston to England seem to have found a pretty good market, as quotations at Liverpool were \$5 per bag of 104 pounds. A few lots were shipped to Belgium and Holland as an experiment, but the results have not as yet been made public.

Colorado potato growers are said to be rather nervous over the outlook for the sale of nearly seven thousand carloads of this year's crop still on hand. On account of cost of freight to the principal markets, it is difficult to sell them at a price that will leave anything for the growers. The new cranberry region in western Virginia is claimed to have produced fruit of very excellent quality the past season and the account states that the bogs in that section averaged \$125 per acre, net profit, on a yield of eighty-four bushels to the acre.

The weather in Florida following the recent freeze was favorable to a gradual thawing out. It is thought that the orange trees were injured less severely than was feared at first. Of course the greater part of the fruit on the trees was badly frozen, but the prospects of the present year's crop are probably not greatly lessened. The trucking season in Texas is reported much later than usual because of the cold weather. The blizzard caused damage in some sections, but not so great as it would have if the season had been further advanced. The main effect in the State as a whole is to make the crop still later. Some tomato plants were lost, and onions more or less damaged. Fruit buds seem to have been uninjured on account of their backward condition.

The strawberry crop in central Florida is stated to have been reduced from one-fourth to one-half as the result of the freeze in the case of fields, which were more or less protected with straw covering or mulch. In unprotected fields the loss seems to have been greater, amounting in some cases to two-thirds of the crop.

Reports from the vegetable farms of Cuba relate that the big freeze extended to that island, producing frost and severe injury to such tender crops as tomatoes. This is the first killing frost reported in Cuba for the past twenty-five years, and in speaking of Cuban farming, that section has generally been considered below the frost line. Apparently only some of the more exposed localities in the island were affected.

The hay market has been slow and dragging, with larger supplies on hand than the market actually needs. The downward tendency is very slight, and prices really average almost the same as when last quoted, but a greater number of sales are made at the lower range than at the top range for each grade.

The Seawater.

I sometimes think when I go to the theatre and see the stage crowded with well-trained supernumeraries, of the time when there was a great scarcity on the mimic scene of the people who are popularly called "mimes." I was at a playhouse once in a neighboring town where the "Forty Thieves" was being performed, and when

Hasrao marched before the footlights he exclaimed: "Three of you follow me, the other thirty-seven remain without."

Apparently only three comparatively small boys could be found to represent the famous forty who were done to death in oil jars by the devoted Morgiana.

This reminds me of a story of the late Charles R. Thorne, Jr., once so well known in Boston as an actor. It relates to his strolling days, before he was the popular leading man at the Union Square Theatre in New York, where "The Two Orphans" was first produced in this country. At the remote time which I allude to above he was playing what is called utility business in a small company, the members of which had to double many parts when a play containing numerous characters was performed. On the occasion referred to there came a hitch near the end of the entertainment because some fakir had forgotten his part and failed to give the requisite cue which would enable his fellow-players to go on with the dialogue. The performers promised to come to a lame and impotent conclusion, but Charles Thorne, who was standing at the wings, was equal to the occasion. He threw about him an old friar's gown and marched to the centre of the stage, raising his hands as he did so, and reverently saying: "The old man blesses you."

This enabled the prompter to ring down the curtain in a satisfactory manner to the audience, though it was, no doubt, somewhat mystified as to the meaning of the demonstration.

The number of people who take the "trolley" for a baggage car is surprising. Four girls sitting together in a surface car the other morning had each a suit-case, a Boston bag, a larger satchel and numerous bundles, and I was wickledly amused when a man stumbled over this impedimenta and said:

"Have you got a Saratoga on behind?" Four tip-tilted noses and four curled upper lips showed how this remark was resented. Perhaps somebody will attempt to bring an elephant with his trunk on the platform of a street-car in the sweet by and by.

The hat of a man at the Dudley-street terminal blew off one day last week, while he was standing where he had no business to be, and it fell into the street below where it was made the sport of the bitter wind. He looked at his watch and evidently concluded that he would have to take the next "L" train to get down town to keep an appointment. Therefore he rushed hatless into the car. I hope he did not get the grippe, but as I sat beside him he sneezed considerably, though this may have been due to the smoke with which he was surrounded. The next time, no doubt, he will stay where he belongs on the platform.

Notes and Queries.

ORIGIN OF RADIUM.—"M": Sir William Ramsay, in a recent lecture on radium, referred to the fact that not only is the proportion of radium to uranium in rocks wherever found about the same, thus pointing to the uranium as the parent and predecessor. Possibly, the origin of radium, but also that the amount of helium in the composition of rocks possibly affords an internal record of the rock. It is too early to offer a reliable assertion as to the origin of radium, yet there is reason for believing that uranium is its parent and predecessor. Possibly, therefore, uranium is an unstable element and slowly degenerates atom by atom into radium the time of half loss being, say, a billion years. Radium again degenerates into helium and other products, which in turn go through relatively shorter periods of degeneration into more stable but relatively de-energized forms of matter. It was pointed out that the evidence was strong in favor of the belief that the energy liberated by radium and its emanations was internal energy of degradation and not energy reflected from without.

BIRTH OF THE MOON.—"E. L.": Year by year the moon is getting a few inches more distant, and reversing the argument, year by year, in the great past the moon was nearer to us. Prof. George Darwin has shown that long, long ago the moon revolved close to the earth, and still earlier formed part of this globe. From that time to the present he calculates at least fifty-four million years must have elapsed. The birth of the moon took, therefore, says the London Telegraph, somewhere about that date in the past. Sir Robert Ball observed that when the moon was near to us its attraction must have produced enormous tides, many times greater than those that wash our shores today, and he suggested that these tides, by their powerful erosions and wasting of the land, accelerated the geological forces and so reduced the tremendous periods which the geologists have demanded.

THE CHAMPAGNE CITY.—"D. H. R.": The town of Epernay, in France, is a vast subterranean city, the streets for miles and miles being made of the solid chalk, flanked with piles of champagne of all blends and qualities. There is no light in this labyrinth of streets, crossings and turnings, except that which the sputtering candles afford. All is dark and damp, with the thermometer down about zero. The largest champagne manufacturers in Epernay possess underground cellars which cover no less than forty-five acres and contain five million bottles of wine.

TORRADO BLINDNESS.—"Arthur": In a recent case it was decided (on medical evidence) that a certain failure of vision occurring in a workman was due to a brick falling on his head, and not, as alleged by his employers, to excessive smoking. The man admitted smoking 11

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ounces of tobacco a week, but this amount was considered insufficient to cause impaired vision. It must, however, be recognized that no hard-and-fast line can be drawn as to what is the limit of safety. Personal idiosyncrasy plays a large part; each individual who smokes has to find out for himself how much he can tolerate or cannot tolerate. The smoking of cigarettes or cigars may, equally with the pipe, lead to amblyopia of varying degree, given a suitable subject. Any condition which lowers the general health may be a predisposing cause, but some who are apparently in the best of health are susceptible. Alcoholic indulgence is in many cases a contributing factor, but it is by no means essential. It is nicotine which, getting into the blood, selects certain nerve fibres (particularly the pupillo-motor fibres) in the optic nerves and causes them to contract, the stronger the tobacco—that is, the higher the percentage of nicotine—the greater will be the amblyopic effect in the susceptible person. Cases have been recorded in which quite small quantities of tobacco, even so small as half an ounce a week, have been sufficient to cause decided amblyopia.

DEATH FROM ELECTRICITY.—"K. F.": While death is produced almost instantly by the passage through the human body of alternating currents of high voltage, such as are encountered in ordinary practice, yet in the currents of enormous voltages produced by Mr. Tesla it is possible for them to pass through the body without the slightest injury. It has, of course, been known that the Tesla currents are of extremely high frequency as compared with the ordinary current, as well as of high voltage, but it was thought that they passed over the surface of the body rather than through it, and thus did no damage. Lately Professor Nernst has shown the Bunsen Spectroscopy of Berlin that effects are due to the high frequency action of the current, which actually does pass through the body, but so rapidly are its alternations that it does not have time to effect any change in the tissue before there is a reversal of the electrical effect. He has shown conclusively in a series of experiments where he passed a high-frequency current through his hand and then through the legs of frogs.

Brilliant.

Children are the keys of Paradise. They alone are good and wise. Because their thoughts, their very lives are prayer.

—R. H. Stoddard. A city throne upon the height behold, Wherein no foot of man as yet has trod; The City of man's life fulfilled in God. Bathed all in light, with open gates of gold, Perfect the City is in tower and street; And where a palace for each mortal waits, Complete and perfect, at whose outer gates An angel stands in occupant to greet. Still shine, O patient City, on the height. The white our race in hut and hovel dwells. It bears the music of thy heavenly bells. And its dull soul is haunted by thy call. Lo! once the Son of Man hath tread thy call. And the dear Christ hath claimed thee for his all.

—Phillips Brooks. The stars that high in heaven their courses run In glory differ, but their light is one. The beacons, gleaming o'er the sea of life, Are rivals but in radiance, not in strife. Shine on, ye sister-towers, across the night! I too will build a lasting home for light.

—Henry van Dyke. De what thou seemest; live thy creed. Hold up to earth the torch divine; Be what thou prayest to be made; Let the great Master's steps be thine.

—Horatio Bonar.

Value of Swamp Lands.

Most farmers in hilly or rolling sections are familiar with swamps or black soils. In some sections nearly every farm has a low, wet place where the soil is black and sticky. In the middle West, notably in Indiana and Illinois and adjoining States, there are large areas of these swamps or black lands which are called "unproductive" and frequently are not cultivated. In fact, so much of this land is found in the two States just mentioned that the experiment stations have made a special study of this class of soils. Farmers have generally

theory is ought to be nearly as rich as mature, yet it is true that swamp lands seldom give permanent satisfaction without the addition of some form of fertilizer.

What is the matter with the soils?

The answer, by chemical analysis and practical experience alike, is that they lack available potash. In Indiana analyses were made of many such soils and in every case a deficiency of potash was shown. In most cases there was less than one-tenth of the potash found in average soils throughout the State. The following analysis, taken from Bulletin No. 95 of the

growing moss. Both nitrogen and phosphorus enter into fairly stable organic combinations with the carbon, hydrogen and oxygen, and when the moss changes to peat, and even when the peat partially decays, these two elements, nitrogen and phosphorus (especially the nitrogen), are largely retained in the organic matter. The potassium, however, reverts more largely to the soluble form, and it is finally lost to a greater or less extent in the drainage waters flowing from the peat bogs.

"A considerable number of peaty swamp soils from different places in the State have been analyzed by the experiment station, and they are found to be very rich in nitrogen, well supplied with phosphorus, but very deficient in potassium, as compared with the ordinary fertile soils of the State."

Farmers are not always ready to accept such scientific theories without proof which they can understand—that is the actual results with crops. Ample proof of this kind has been given by both the Illinois and Indiana Experiment Stations. In Indiana it was found that many of these tracts of swamp land were very hard to drain. Of course they could not be permanently improved until the surface water was removed. Where water stands thirty inches below the surface such a crop as corn cannot be

dred bushels of corn contain fifty-two pounds of potash, while the grain contains nineteen pounds, or seventy-one in all. As the stalks grow before the ears are formed, they will exhaust the potash in the soil, if it is deficient, so that when the ears are made there is little potash left for them. The result will be small and imperfect ears and poor grain. One Illinois farmer gave a good illustration of this. His soil was a black peat sixteen inches deep. The experiment station used it for growing corn, and among other chemicals need potash at the rate of two hundred pounds muriate per acre. The result was that no ear corn was produced where no potash was used, while in every case where potash was added, alone or with other chemicals, from thirty-six to sixty bushels of corn per acre were grown. The farmer of this farm saw how potash produced corn and he decided to use potash again. The following year he used fifty pounds of muriate of potash per acre. The result was a good crop of stalks but no ear corn. We can easily see the reason for this. There was little or no available potash in the soil. The corn crop was obliged to depend upon what was added in the muriate of potash. The stalks alone required fifty-two pounds of potash

dition, and having a variety of foods always before them, will go from one to another selecting from each only the amount which their systems require.

GRACE F. BARBER.

—The report that the czar and his advisers have formally discussed the question of peace with Japan is confidently asserted, but without confirmatory details. It is suggested that Tokio has in some way, outside of the usual diplomatic channels, made known the terms on which it would agree to peace. This latter idea has nothing substantial to support it. It is safe to assume that any early prospect of peace, if there is any such, would be in the sea of internal difficulties rising about the government. The effect of the killing of Sergius is problematical. Friends of Russia are likely to deplore his assassination on the ground that it may serve as a pretext on the part of those who control the reform and keeping the reform measures from the autocracy by the espousal of the cause of the people by the nobility and the pressure of foreign sentiment. The weak sovereign who was vacillating between granting reform and keeping the autocracy intact is likely to be profoundly shocked by the event, and to throw the weight of his influence, whatever that may be, onto the side of the extreme conservatives. Coming just at this moment when he had made known his views in favor of a Zemsky Sobor which might have played an important part in the present crisis in Russia, the outcome of the incident will be watched with the keenest interest.

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The animal representing the above herd at the St. Louis International is Happy Christmas (2142), champion bull (all breeds and ages) in England. He has been used exclusively on the main herd for two seasons and has proved himself, and acknowledged to be the best champion stock savior that ever left English soil. He sired first and second prize calves, open to all England. F. K. N. Bishop's Farm, Herefordshire.

ATTRACTIVE COTTAGE FOR SALE.



The two accompanying sketches herewith represent a modern dwelling house with a large stable 25x30, an annex, ice-house and shed, spring water, with a beautiful pine grove, all situated on a four-acre village plot of high ground, well drained in the valley of the Mad River, in Campton Village, New Hampshire. Only a few minutes from Boston & Maine Railroad, churches, schools and postoffice. Telephone connections.

Main house is two-story with 14 rooms, in excellent repair and newly painted, wide piazza all around the house. Over four acres of land. Very large and fine shade trees, also many choice fruit trees. A location unusually attractive and healthy, with superb mountain scenery and charming drives.



This property is for sale, to close an estate, at a heavy discount from cost. Must be seen to be fully appreciated. Fully furnished. Furniture will be sold, if desired, to the purchaser of the real estate. For price and other particulars, address

MRS. DONA JAMES.
No. 148 Court Street, Laconia, New Hampshire.

AVERAGE SAMPLES OF CORN GROWN ON SWAMP LAND, WITH AND WITHOUT KAINIT.
Test made by Experiment Station of Indiana.

been taught to believe that the black soils are naturally very rich in plant food.

"The swamps ought to be rich since they have received for centuries the drainage from the hills."

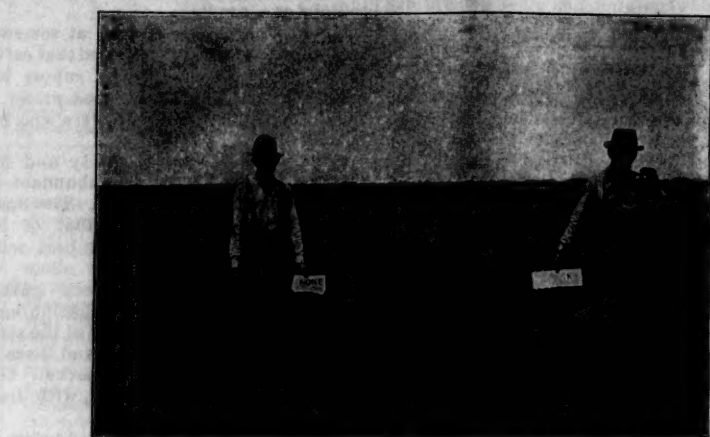
We often hear farmers make that statement and it has much truth in it. Many of these places represent the bottoms of old ponds, the water having dried out or escaped in some way so as to leave the bottom bare. Here nature has locked up great treasures of plant food, and in doing so, as we shall see, carried the key away with her.

TWO METHODS OF HANDLING

such soils have been tried, both based on the theory that swamp soil or muck contains a well-balanced ration of all needed plant food. The mistake in the theory

Indiana station shows, in part, the composition of such a soil: Top soil: Nitrogen, 3.22 per cent., phosphoric acid, 0.46 per cent., potash, 0.105 per cent.; sub-soil: Nitrogen, 2.84 per cent., phosphoric acid, 0.27 per cent., potash, 0.108 per cent.

In some cases a chemical analysis of a soil is of little value to the farmer, but this one gives a clue to the solution of a puzzling farm problem. Here we have a soil containing as much nitrogen as a large proportion of the chemical fertilizers offered for sale, three or four times as much phosphoric acid as a good average soil, but only about one-tenth as much potash as will be found in average clay loam. It is easily seen from this why such soil fails to produce good crops year after year. There is



BUCKWHEAT GROWN ON SWAMP SOIL, ON THE FARM OF MR. C. C. PORTER AT MOMENCE, ILLINOIS.

On the left—No potash. On the right—With potash.

successfully grown. Since it was impossible for the owners of such lands to drain them thoroughly by ordinary means, experiments were made to see what temporary improvement could be made in the crops. Part of the land selected for the experiments was plowed in the ordinary way. Another part was subsoiled in addition—that is, after plowing, a subsoil plow was run deeper in each furrow, not turning the lower soil over but simply breaking it up. Plots of equal size in each portion were laid out, one being planted as it stood to test the natural capacity of the soil. On another plot kainit at the rate of one ton per acre was used, on another the same amount of kainit and lime at the rate of five tons per acre, and another an equal amount of lime alone. The kainit contained no plant food but potash. The object in using the lime both alone and with the kainit was to test the oft-repeated claim that lime will set such soils right.

The following table shows the results:

Addition	Sound Corn Bushels	Poor Corn Bushels	Fodder Tons
None	28.6	11.9	1.30
Kainit	33.9	4.4	2.43
Kainit & Lime	32.4	4.5	2.40
Lime	26.1	11.8	1.48

SUB-SOIL.

Addition	Sound Corn Bushels	Poor Corn Bushels	Fodder Tons
None	36.4	12.9	1.94
Kainit	36.4	2.3	2.42
Kainit & Lime	32.9	2.2	2.21
Lime	32.4	10.5	1.90
None	4.0	12.6	0.96

No one could ask for stronger evidence than this. It is exactly what we had a right to expect from the analysis of the soil. Not only was the potash in the soil deficient as compared with other soils, but what there was present was unavailable to plants. When the kainit was used as a fertilizer the corn received what it needed, and gave a fair crop even on this poorly drained soil. Take the average of the two bushels of sound corn and 11.50 bushels of poor corn. The average of the plots where kainit was used shows 38.1 bushels of sound and 3.35 of poor corn. There can be no question that this increase was due to the potash in the kainit. The use of lime alone was not satisfactory. We see from the table that what the soil needed was potash. The lime could not furnish potash or set it free in the soil, and thus it failed to produce the crop. Not only is this so, but you will notice that where the kainit was used the proportion of poor corn is lower. It is always the rule that an abundant supply of potash insures a plump ear, well filled to the tip. The benefit was not confined to the first year. For ten years after the kainit was used there was an increase in yield. In eleven years this gain over the natural soil amounted to 304 bushels per acre, which represents the gain from using one ton of kainit. At the average selling price of thirty-five cents per bushel this means \$307.90. In every case where potash has been used on these black, unproductive soils the gain in the crop yields has been remarkable.

The results on similar soils in Illinois, as recorded in Bulletin No. 93 were just as marked. In every case where potash was used the yield of the corn was increased. Analysis of this Illinois soil showed much the same condition as was found in Indiana—the black or swamp soil contained several times as much nitrogen as the best soils in the corn belt and also an abundance of phosphoric acid. It was, however, almost entirely deficient in available potash. It was this lack of potash, combined with poor drainage, that made these soils unproductive. The use of lime alone did not increase the yield greatly because it did not add potash.

These Illinois experiments were even more elaborate than those in Indiana. One soil thus tested consisted of about sixteen inches of black peat, then fourteen inches of lighter soil, with a subsoil of coarse sand. This soil was a failure at producing ordinary crops, particularly corn. While analysis showed a lack of potash it was determined to try. The results are even more striking than on the Indiana soil. It was evident that lime was not the needed addition, for even where nitrogen and phosphoric acid were used alone or together, with lime, no ear corn was made. Just as we should expect, these elements of plant food increased the growth of stalk, but could not complete the ear. It was only when potash was added that the ear was formed.

THE POTASH NEED OF CORN

is made very clear in this bulletin. The stalks required to grow a crop of one hun-

Poultry.

Meat and Cut Bone for Poultry.

One cannot reasonably expect many eggs in winter and early spring unless the hens are provided with a balanced ration, and this should contain a much larger proportion of green cut bone and lean meat scraps than is generally supposed.

During the summer when fowls have free range they balance the ration themselves to suit their needs, and the bugs and worms which they eat would probably be found to furnish about half of their food. The matter thus sums itself up in this way: In summer, when the hens eat all the animal food they want, eggs are plenty; in winter, when such food is not available, the egg supply falls, unless the necessary elements are given in the form of cut bone and meat scraps.

This meat and bone ration, besides furnishing material for making eggs, gets the fowls in good physical condition, improving the health and acting as a tonic.

A chemical analysis of green cut bone and meat shows why their use brings an abundance of eggs, as they contain the elements which are found in a complete egg. Lean meat and gristle form the white of the egg and about one-sixth of the yolk, the marrow and clear fat supply the remainder of the yolk, while the lime phosphates contained in the bone help to form the shell, and also supply the small amount of phosphate found in both white and yolk.

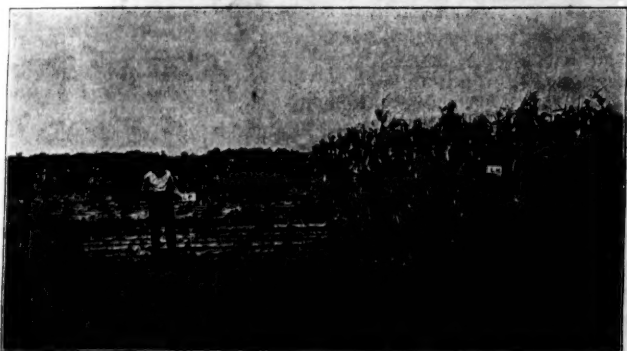
Hens which are fed plenty of such food never eat their eggs, which shows that it is the elements which are lacking in their food supply which causes them to become addicted to egg eating.

It is often hard to break a hen of the habit after it is once formed, but a liberal feed of this material two or three times a week will soon fill her system so full of the required elements that she will have no desire for it in egg form.

Experiments have been made by poultry raisers which shows the difference in the growth of chickens, as well as in egg production, when an entire grain ration is used for one flock, and another one is supplied with grain and animal food combined. In one case, those fed on the latter ration reached a certain weight five weeks earlier than those fed on grain alone, and the pullets began to lay a month earlier than grain-fed ones. According to this, the grain is far out of proportion to the trouble and expense which this balanced ration causes.

Cut bone yields twenty-one per cent. of protein, which is a muscle maker, meat meal furnishes forty per cent. and clear beef scraps fifty per cent. This makes them yield respectively 3.3, 6.4 and 5 ounces of muscle maker from each pound fed. As each dozen eggs is supposed to contain about three ounces of protein, it will be readily seen why these foods are necessary to egg production.

One should stop feeding animal food before the fowls have had quite enough of it, so as to keep their appetites always keen for it. This, of course, only applies to those in confinement, as it has been demonstrated that hens living under natural con-



CORN GROWN ON SWAMP SOIL.
No potash on left. With potash on right.
Experiment conducted by the Illinois Experiment Station.

has made both methods disappointing. One plan is to dig out the muck, leave it for a time to "sweeten," and then spread it on the upper fields of the farm like manure. But in all cases where muck is used alone for fertilizing other fields, the final result is disappointing. Somehow the muck does not "hold out" or continue to give good crops.

Another well-known method is to drain the swamp either with open ditches or tile, and thus reduce the level at which water stands. When this is done the soil can be worked with horse tools and planted with ordinary crops. Thus in one case the swamp is carried to crops in higher fields, while in the other the swamp is dried and

nitrogen and phosphoric acid enough to last five hundred years, but the lack of potash renders these elements useless for the production of crops like potatoes or grain. Even the potash found naturally in such soil is, for the most part, unavailable, being in such forms that the plants cannot use it.

It will, of course, be asked how such soil can be rich in nitrogen and phosphoric acid and yet low in potash. In Bulletin No. 93 of the Illinois station the following explanation is made for the lack of potash in peaty soils:

NATURE OF PEAT SOILS.
"Peat itself consists largely of partially decayed sphagnum moss, which



Without Potash. With Potash.
Average corn stalks, with and without potash, grown on the farm of Mr. J. H. Milligan at Tampico, Illinois.
Without potash, no yield. With potash, yield from 35 to 60 bushels of shelled corn per acre.
Experiment made under the direction of the Illinois Experiment Station.

the crops are brought to it. It is noticed that when grass is seeded in these drained swamps it usually makes a good growth for a few years. Small grain also does fairly well, though inclined to lodge or fall down. In many swamps, corn, while making a fair stalk, refuses to ear well; and potatoes make heavy vines but produce poor tubers. Farmers have often observed these facts about black soil or muck and have wondered why this apparently rich soil fails. In

grow in the water once covering these areas. In growing, the moss obtains carbon from the carbon dioxide in the air, and hydrogen and oxygen from water, being similar to other plants in this respect. The water in which the sphagnum moss grows is more or less stagnant. It is usually surface drainage or seepage water, and contains sufficient nitrogen, phosphorus, potassium and other essential elements of plant food to meet the needs of

Our Homes.

The Workbox.
LADY'S CROCHETED SKIRT.
(In Roman Colors.)

Use the Bear brand, 3-fold Saxony yarn as follows:
Fire skeins red No. 1411A, 3 skeins green No. 1399, 3 skeins pink No. 2005, 2 skeins blue No. 1100, 2 skeins cream white, 1 skein yellow No. 1570, 2 skeins black. One bone crochet needle No. 3. Ribbon for belt and placket hole fastening. Chain 300 stitches in red.

(*) One single crochet (or slipper stitch, which is a row of work into back part of stitch, forming a ribbed effect) in each of first 2 stitches, 2 in next, 2 plain, skip 1 and repeat from (*) to end of row. At the end of the row join by making a chain of 5. Join every row in this way until length of placket is reached.

2d row—One single in each of first 3 stitches, 2 single in next stitch, 3 plain, skip 2 and repeat to end of row.

3d row—One single in each of first 2 stitches, 3 single in next stitch, 2 plain single, skip 2 and repeat to end of row.

4th row—Three single, 3 single all in next stitch, 3 single, skip 2 and repeat to end of row. Make 11 rows like the fourth row.

12th row—Widen by taking up every stitch with 3 single in top stitch of each scallop. Widen in this way every 14th row 5 times, then every 15th row 4 times. Last 43 rows are made without widening.

Seventy rows red, 1 row each of black, red, white, black, white, pink, green, white, 3 rows pink, 1 row each of blue, white, black, red, 4 rows pink, 1 row white, 1 row green, 1 row pink, 1 row each of white, black, white, pink, 3 rows blue, 1 row each of white, black, red, pink, red, pink, red, black, 7 rows green, 1 row white, black, pink, red, 8 rows green, 1 row each black, pink, red, black, blue, black, blue, black, pink, red, black, red, black, 14 rows red.

When the skirt is finished, cut apart the chains which join the placket hole, and face each side with ribbon, finishing the edge with a tiny scallop of wool. The belt is of ribbon, finished with a hook and eye.

EVA M. NILES.

Sweeping a Room.

It requires skill and patience to sweep a room properly. The chief mistake made by the novice is in taking long, heavy strokes. Short, light strokes which are firm do the work as it should be done. It is always best to sweep a heavy Brussels carpet or one of similar make once with the grain and then across it, going over each three or four yards in this way until the entire carpet is swept. When a carpet is old and worn evenly this is not necessary, but if it is new or has perceptible ridges in the weaving this method should be followed.

After going over a room thoroughly, allow the dust to settle, and in ten or fifteen minutes give it the final brushing—sweeping once again rather lightly. This can be done with a carpet sweeper, or dampened broom. The leaves scattered over the carpet, however, are better than either. They should be wrung out and loosely sprinkled over the carpet just before this final sweeping.

It is a good plan to add a cupful of salt to every two cupfuls of tea leaves used. The salt seems to brighten the colors of a faded carpet, as well as to aid in the removal of dust. When this second sweeping is over use a whisk broom around the corners and at the edges of the carpet.

After the walls are dusted and the carpet is thoroughly swept, some housekeepers wipe off the carpet's surface with a cloth dipped in salt and water and then thoroughly wring out. This will remove every atom of dust. A cloth used for this purpose must be frequently rinsed out in fresh water, and then dipped again into salt and water, wringing thoroughly. Other housekeepers rub the carpet with a cloth wrung out as dry as possible from water to which two tablespoonfuls of ammonia have been added for every gallon. This will also brighten faded colors.

It is needless to say that in sweeping as thoroughly as this everything in the room should either be removed or covered carefully with dusting sheets. Housekeepers who are buying heavy pieces of furniture should select only those that can be set on casters, so that they can be pushed out and the dust under them removed.

It is a great mistake to neglect sweeping as thoroughly as this once a week. Dust that becomes ground into a carpet wears it out more than anything else. Fortunately, many houses of today are built with hardwood floors, so that this burden of sweeping is materially lessened. Wood floors are easily swept with hair brushes or rubbed with crude petroleum or simply polished with a waxing brush.—N. Y. Tribune.

Craving for Stimulants.

That the blood normally contains stimulants, that these stimulants exercise a favoring influence on function, and conduce to, and may even be a necessary factor in the production of, the feeling of well-being, explains the widespread liking in man and beast for stimulating substances, says Dr. Harry Campbell. This liking, amounting often to a craving, is the expression of a great physiological principle. When there is perfect health, when the blood is well provided with its proper stimulants and not overcharged with depressants, there is no craving for extraneous stimulants, as alcohol, tea or coffee. But when it is defective with the one and surcharged with the other, then is left the desire for the glass of wine or the cup of tea. In order to obviate this desire we should seek to keep the body at the highest level of health. The more perfect the health, the more perfect will be the composition of the blood both in respect to physiological stimulants and deleterious toxins. A blood properly constituted in these and other respects will exercise a gentle stimulant action on the nervous system and induce a condition of mild physiological intoxication, which expresses itself in a feeling of well-being and happiness, a condition which cannot be bettered.

The Uses of Cod Liver Oil.

There are few people who, at one time or another, have not had occasion to take cod liver oil. In bronchial affections, in rheumatism, in scrofula, indeed, in all wasting affections, it is a restorative food of unsurpassable excellence. It has recently been shown that a horse fed daily on 4 ounces of linseed oil could do 464,000 pounds more work than without it. Oil not only makes the other food taken more serviceable, but its own food value is of the profoundest importance.

When a man begins to run down, he loses fat. Common sense would, therefore, direct that, under such circumstances, the best thing to take would be fat or oil. Practical experience verifies the inference of common

sense. In consumption, for example, a disease in which there are inevitably wasting and considerable loss of weight, if not stayed in its course, the very best agent in the world is cod liver oil. It cures the cough, tones the lungs and their mucous membrane, improves the appetite and digestion, lessens the night-sweats, and rounds again the wasting, weakened limbs with fat. The greatest authority of our time says that after using this oil for about half a century he found it the only agent worthy of the name of remedy in consumption.

The physicians inform us that fat contains nearly double the amount of force of other foods, and the physiologists point out that it is therefore peculiarly adapted for storing away for future use, as in the hibernating bear, etc. Fat conserves the body heat; and fat people as a rule are, perhaps, good-natured people, though it is not the fat folks who have advanced the great work of the world to any wonderful extent. But we have to speak of a property of cod liver oil rarely or ever mentioned. It is its usefulness in correcting mal-assimilation by rendering the other food more beneficial. Without fat, the digestive process is soon becomes impaired, the assimilation prevented, the health reduced. In gout, rheumatism, scrofula and syphilis, cod liver oil is often of yeoman service in assisting to restore the nutritive processes to the normal state. To be sure, in gout and rheumatism there may seem to be a contra-indication to oil. But then, it will often restore the strength when nothing else will. This is a point worth bearing in mind. We should recollect that in growing children, oil participates in the process to an important degree. It is the same with the cell-growth in convalescence.—Health.

Japanese Hairdressing.

This is quite a fine art; and there a pretty woman will not grudge a whole day spent in front of her mirror while her attendant applies the pomade so necessary for her elaborate coiffure, in which there must not be a hair out of place. The picturesque curls and fluffiness admired by Western women would not for a moment be tolerated by her, and her abundant tresses cannot be too smooth and stiff for the elaborate designs into which they are formed.

It is only while they are young that Japanese women have a wealth of hair; much of it disappears when they are about thirty, and as old age creeps on their attire becomes severely simple. There is no pretense about being younger than they are—that is an idea which would strike them as decidedly foolish—and so little do they mind the world knowing their ages, that the arrangement of hair shows the different stages they have reached in life's journey.

For small occasions ornaments of various kinds are worn in the hairpins of ivory, tortoise shell and gold, and some of them bright red and some emerald like flowers. This elaborate hairdressing is not the waste of time that one might imagine, for it is allowed to remain undisturbed for several days and keeps quite neat, for the wooden block which is used instead of a pillow at night in no way interferes with it. When at last the hair must be rearranged it is carefully washed before the pomade is renewed, for great care is taken by the dainty little Japs in matters of personal cleanliness.—Chicago News.

To Have More Heat from Radiator.

There are a good many rooms where the radiator is either too small or the steam pressure is too low to maintain a comfortable temperature in severe weather. If the tenant is enjoying the many advantages afforded by central station electric lighting service, the matter can easily be remedied. Take the fan that kept you cool all summer and set it where it can blow against a large part of the radiator's surface. Turn it on at low speed, or high if necessary, and your cold room will soon be thoroughly warmed. The philosophy of the thing is that steam at a low pressure carries much less latent heat than steam at a high pressure, and therefore warms the radiator so poorly that only a slight draught of air rises around the pipes, and condensation is slow. With the fan in operation there is a forced draught against the radiator that conducts a great deal more heat away from the iron, cooling it so that much more condensation of steam occurs inside it. The heat thus snatched from the reluctant radiator is held in the circulating atmosphere of the room, which is soon changed from cold to warm at a trifling cost for electric energy.

Cold Feet and Indigestion.

Coldness of feet and limbs is almost invariably an evidence of indigestion. The coldness is not due to the weakness of the heart or feebleness of circulation, as is generally supposed, but to the contraction of small arteries, preventing blood from entering the parts. There is generally an irritation in the abdominal sympathetic nerve centres which control the circulation of the lower extremities. This difficulty is not to be removed by exercise or by any special application to the limbs, but by removal of the causes of the irritation. This may be a prolapsed stomach or chronic indigestion. Hot and cold foot baths are valuable. These set, not simply on the feet and limbs, but reflex action affect beneficially the abdominal sympathetic centres, which are in a diseased condition.

Rubbing of the feet and legs is also an excellent method of overcoming spasm of the blood vessels, thus preserving the normal circulation. The rubbing should be from the feet towards the body. The surface should be well lubricated with vaseline. To avoid irritation of the skin care should also be taken to clothe limbs very warmly. In many cases this is necessary, even in the summer season.

Notes for the Sickroom.

Keep all medicine bottles out of the room, or at least where the invalid cannot see them. Tea and coffee, where a patient is allowed to have them, should always be taken immediately after they are made.

Food for the sick should be of the best quality, neatly and delicately prepared. Every meal should be a surprise, and it is a good plan to leave the patient alone while eating, and never bring him more than he will probably want.

Of course, every one knows that plenty of ventilation is necessary, though there should be no draughts of air directly blowing on the patient.

Each individual disease should have a peculiar diet of its own. It is well not to keep much bedclothing over an invalid. Down comforters are desirable, because they are so light and at the same time so warm. There are not many things more annoying than to lie under the weight of heavy blankets and

comforters. It is a good plan to wrap an old baby blanket or shawl around the feet to keep them warm. Another small blanket to lay against the back will be appreciated.

No food or drinks should be allowed to remain in the sickroom. They should be kept in an adjoining room or on the outside of a window, carefully covered, and where they may be kept perfectly cool.

Where one is just recovering from a long illness or is a chronic invalid, it is often a good plan, if permissible, to move him from one bedroom to another, a week perhaps in one and then a week in another. This will give variety, for an invalid tired of seeing the same furnishings and bric-a-brac in the same place day after day and week after week. It has been suggested that an invalid or a patient who is convalescing, and can be moved, might sleep in one bedroom and spend the daytime in another.

Never tell horrifying stories or anything unpleasant to any invalid. This would seem like an unnecessary injunction, but it is a common thing done by many well-meaning, thoughtless people. Talk to the patient only about agreeable, cheerful or uplifting topics.

Grass Adulterations.

The Health Protective Society of New York was recently addressed by R. E. Doolittle, the chief of the New York Laboratory of the United States Department of Agriculture, and he told them that the country had little protection against adulteration and misbranding, except in the case of foreign products. These, in consequence of recent legislation, are now denied admission to the country if adulterated or of inferior quality, thus placing a premium upon foreign goods. Not all adulteration is prohibited, it is true, but the necessity for calling things just what they are is as effective as actual prohibition.

"Importers say," said Mr. Doolittle, "that to mark their products 'artificially colored' is just the same as to inscribe the word 'poison' upon them." A resolution which the women present made was to grind their own spices henceforth and forever. It is practically the only way, Mr. Doolittle said, to secure pure coffee and spices, and even then one cannot be absolutely sure that some of the coffee beans are not made out of wheat "middlings."

Mr. Doolittle passed around some spoons of coffee and spices which were made up, according to the analyses posted on the bottles, of almost everything except the substances indicated by the names. Black pepper was composed of ground olive stones, almond shells, walnut middlings and white pepper shells. An analysis of ginger brought to light such things as wheat flour, rice bran, mustard hulls, and in one case twenty per cent. of plaster. Mustard was colored in one case with turmeric, a harmless vegetable oil, and in another with martius yellow, a poisonous coal-tar dye. It was adulterated with flour and in one case with twenty per cent. of plaster. Coffee was adulterated with chicory and various other things, but here, it appears, the housekeeper is not without protection.

"If you want to test coffee," said Mr. Doolittle, "just put a little of it in water. The coffee will float and the adulterants will sink to the bottom." Other specimens which the speaker showed were even worse than the spices. A sample of cream of tartar was made up of acid phosphate of lime and seventy per cent. of plaster.

"Just such ingredients as are ordinarily used for fertilizers," commented Mr. Doolittle.

A specimen of currant jelly had been analyzed into starch paste, sweetened with glucose, colored with coal tar, flavored with chemicals and preserved with salicylic acid.

"Jellies and jams are among the most grossly adulterated products on the market, and flavoring extracts, such as vanilla, lemon and orange, are as bad. These vile mixtures have been found to contain as much as ninety per cent. of wood alcohol, an almost deadly poison, which acts upon the eyes and produces blindness.

"The extent to which artificial coloring matter is used in food products is something tremendous," proceeded Mr. Doolittle, "and for this the consumers have themselves to blame, to a great extent. They are attracted by brilliancy of color—hence they buy—whereas, they ought to regard it as a flag of danger."

"Why can't the use of all artificial coloring be prohibited," asked the president, Mrs. J. Augustine Wilson.

"That is what I should like to see done," returned the speaker. "I don't see why any one wants the color. But as a matter of fact, it would be very difficult to carry out such a measure as long as the consumer demands brightly colored food products. What we need is a better educated public, and that is where organizations like this can do good work."

Don'ts.

Don't wear a scarf pin on a flat "made" where there can be no reason for it holding anything.

Don't wear an ordinary finger ring, and especially a woman's ring, as a scarf ring. A colled snake, antique seal, or curious form not appropriate for the hand, may sometimes be used. But the scarf ring is better, it holds the tie in good lines and seems to have a reason for being worn.

Don't wear anything "sporty"—bull pups, hounds in full cry, jockey caps, stirrups, etc. There is no harm in a horse-aloe pin to fasten a riding stock, but such are much too commonly worn.

Don't wear a ruby Thanksgiving turkey (yes, I have seen one), diamond automobile, Santos Dumont flying machine, or a lawn mower. Such things may be found in every shop, but are the expression of the rich who pin them on for a moment's amusement; they should never be indulged in by those who can have but few jewels.—Madame.

Turkey Farmer's Secrets.

The turkey farmer pointed to a small mill wherein a petroleum engine chug-chugged vigorously.

"In that mill," he said, "the feed for my two thousand turkeys is ground. The whole secret of successful turkey raising lies in abundant feeding. It keeps six men busy to feed my birds."

"They are fed five times a day and each turkey gets as much as he can hold. Carrots boiled in lard and crushed barley and milk are very good fatteners, and the birds stuff themselves with them. Then, the last thing before going to roost, they eat all the oatmeal porridge and buttermilk they can find room for."

"Cocks cock more than hens on the market, because they are harder to raise. If they get together they fight and kill one another, and they eat, furthermore, five times as much as hens."

"A cock three hours before killing in

is added to swallow a half pint of vinegar. This vinegar makes his flesh fine and tender; without it he would be coarse and tough."

"A turkey farm like mine pays easily from \$1500 to \$2500 a year."

Adulterated Wine and Beer.

Wine of a good quality can be got very cheaply in these days. Yet much of it is adulterated. Cheap claret is actually made in London from rainwater with sugar and yeast thrown in. From the remains of the raisins another brew is taken off. It is as light as beer, and would not sell readily in that condition, so it is brought to the redness of claret with an admixture of fusel oil and camphor bark. Champagne of the cheaper kind is often made from elder.

Beer probably takes the palm for adulteration, and here again you find the adulterator saying he only does it because his customers do not like the pure article. Few of them have ever had the chance of forming an opinion. To impart bitterness, picroleucin, glycerol, wormwood, and general adulterants are put in. To give beer a "head" and the flavor of age, the brewer introduces sulphuric acid, sulphate of iron and alum.

To make you drink more, the publican puts in salt sometimes.

Domestic Hints.

A NOVEL CRANBERRY PIE.

Take a good-sized cupful of cranberries, cut them in two and put them in cold water to draw out the seeds. Mix a tablespoonful of flour with a cupful of sugar, and then add slowly a scant cupful of boiling water and half a cupful of raisins, stoned and cut in two. Lift the cranberries out of the cold water which should be thrown away, and mix them with the other ingredients. Bake between two crusts. Sometimes a teaspoonful of vanilla is added.

FRIED GRAHAM MUFFINS.

For them mix one and a half pints of graham flour with half a cup of sugar, a cup of wheat meal, a teaspoonful of salt. Sift with one teaspoonful of cream of tartar and one of soda, or two "rounded" teaspoonfuls of baking powder. Then add two well beaten eggs and a pint of milk. Dip large spoonfuls of the dough in hot lard, and fry them a golden brown. Serve hot.

BAKED TURNIPS.

Wash and pare a good sized turnip, and then cut in crosswise slices about a quarter of an inch thick; boil until tender, but not too soft; then remove carefully, and place in a pan with a spoonful of butter, three tablespoonfuls of water and a little salt, and bake until a nice brown. When done place in a vegetable dish and cover with melted butter.

OYSTER BALLS.

Fry a dozen good-sized oysters in butter; then chop and season well. Mix with a cupful of well-cooked rice, one egg, a little chopped onion and milk enough to hold the mixture together when made into balls. Roll in egg and then in breadcrumbs and fry in butter. A nice luncheon dish.

CREAM SPONGE CAKE.

Whip separately and then thoroughly together the yolks and whites of three eggs; add one cup of sugar, one-third of a cup of milk, one-half of a cupful of soda mixed in two scant cupfuls of flour, and one teaspoonful of cream of tartar, dissolved in milk. Bake in a square tin, and if desired split when cool and add a filling.

DATE PATTY CAKE.

Mix a third of a cupful of soft butter with 1-3 cupfuls of brown sugar. When partly creamed break in two eggs and beat the mixture until very light. Then add half a cupful of milk.

One cup of sifted flour in two scant cupfuls of two teaspoonfuls of baking powder. Beat to a smooth batter, then stir in half a teaspoonful each of cinnamon and nutmeg. Add half a pound of dates which have had the stones removed, small, and mixed with a little flour. Then beat hard for two or three minutes. Bake in small fancy patty pans, in a moderate oven. When cold cover with vanilla icing.

Hints to Housekeepers.

To keep moths from furs and woolen articles: When putting away furs and woolen articles for the summer, carefully wrap each article separately in newspaper, and put pieces of carbon away with them in tin box or cupboard. Printers' ink is death to moths.

Mildew is one of the most difficult stains to remove. Rub well with brown soap, then apply a paste of chalk and water, and put the article in the sun. After two or three applications the mildew will be bleached out.

The fire can be drawn from a burn by applying cloths wet in strong alum water. It will also assist in relieving the pain.

Stains on black cloth can be removed by rubbing with a freshly cut raw potato. Afterwards rub with a clean cloth.

Always put the sugar used in a pie in the centre of the fruit, not at the top, as this makes the paste sodden.

On all acid will remove stains from ivory, say, piano keys. Generally the keys may be kept in condition of whiteness by simple rubbing with alcohol. This means spirits, not wood alcohol.

Bananas are very good with beefsteak. While the steak is on the broiler slice two bananas in rounds about half an inch thick. Fry them in a little butter, and arrange over the beefsteak on a hot platter.

The forests are showing dwarf like trees in full bloom, and any number of Japanese plum and apple trees. These make lovely decorations, costing no more than cut flowers, and lasting much longer. They are charming for owners, for piano decorations, or to fill any space where a hall of flowers is appropriate.

The things for a woman to eat whose complexion is not above reproach are cooked vegetables, raw and cooked salads and stewed fruits. The cooked salads are those that are made of vegetables and the Russian salads, which are composed of shredded beets, cold potatoes, string beans and peas, all beautifully dressed with mayonnaise, a dish fit for the Czar.

Fashion Notes.

"This is a silk year, and ribbons of great beauty are used lavishly on the new hats. As a rule they are of the softest and most pliable silks, and are put on, not in stiff bows, but folded and crushed into rosettes. Several tones of a color are used in these rosettes, giving a flower-like effect. One sees at a glance that the general place of the hats is not so much pleasure as dash and smart. Wings and quills appear prominently among the trimmings. A great many altitudes are seen."

"Many of the new shapes sit over the face, and it is not at all improbable that this manner of style of hairdressing. The present pompadour could not be adjusted to these shapes. In fact, the most extreme of them would need a fringe to make them look well. In the latest published photographs of English beauties there appears a thick curl hanging over the forehead. This much of a fringe is not at all objectionable, and anyone it will have to be adopted if the hats are to be worn."

"The first of the untrimmed millinery shapes have appeared, and we may get a fair idea of coming modes. Chiffon, mousseline and maline will be worn a great deal, and as it is possible to buy beautiful shapes in these materials, the economical woman will rejoice in the news. Most of the shapes require little trimming, a flower or two or a bow. The materials are manipulated in a truly wonderful manner, and so much of it is required to make hats that one wonders how the shape can afford to sell the shapes so cheaply. There seems to be little change in hat styles. The shapes are about what we have been wearing all winter. Some charming millinery are displayed. At a shop where men's hats of exceptional style are sold were seen some very good millinery hats. They were almost as light as Panama hats and were made to clean easily, and to give excellent wear. Hair straw rollers were seen at the same

shop, and were much admired. Most of the shapes had rolling brims, and were free from some of the stiffness one associates with salons.

"As an example in these tip-tipped hats was a charming little sailor in a rough violet color with straw. A thick twist of ribbon in a pale shade of violet encircled the crown, which was dented in the center of the back and appeared a mass of violet in several shades of color."

"A more elaborate tip-tipped model was a white chip hat with wide brim and a Tam-o-Shanter crown. The brim was turned up in a Continental shape, dented in at the back, and rolled up on the left side. A very handsome white ostrich plume trimmed the hat from front to back on the right side of the crown, while clusters of pale pink roses trimmed the back and the rolled-up brim. The hat was to be worn over the forehead, as indicated by the high band on the back."

"French fashion writers have been exploiting the tiny cap turbans. For a time this style of hat or bonnet was confined to the theatre, but lately it has appeared for dressy, daytime wear. If its vogue reaches this side, it will be something of a surprise. American women, as a rule, are not as excessively careful of their coiffures as the French women. The American puff of hair, sometimes too elaborately, but she does not expect to go to the coiffure every other day, and have her tresses arranged in a set pattern. Some women do, of course, but they are not in the majority. Nor are such coiffures generally admired. No other kind, however, can stand the tiny hats, which are described as 'perching amidst the topmost coils of the hair,' or sitting across the forehead 'with only a few tendrils of hair below it.' We shall hope to escape the little turbans."

"Many charming waists are shown by importers, suitable for theatres or restaurant diners. These are usually white, and with few exceptions are distressingly elaborate. An exception to this was a chalk-white waist made of wide striped heavy lace joined by narrow bands of crepe de chine laid in the finest of little hand-run tucks. The waist was rather severely cut, as the weight of the lace forbade any other style. The sole trimming was an application of pale tinted silk embroidery which was laid on in a simulated yoke border. This delicate passementerie was in the form of conventionalized roses."

"A combination of white lousine and thin white lace made a lovely waist. The yoke and full sleeves were of the lace, and the silk was laid in fine box plaits, each alternate plait being brought up over the yoke, where it was attached by a tiny silk button. The sleeves were full and drooping, and were confined in high cuffs made by three folds of the silk placed about an inch apart."

"A white tulle waist illustrated the extreme of the new model. It was a surprise laid in, inch-wide box plaits, and had a sharply pointed girdle, very long in the front, and huge loops of tulle sleeves. The girdle and collar were of coffee-colored lace, and there were high, transparent cuffs of the lace to finish the sleeves."

"White pongee, in pure white, cream, string, and other shades, is extremely pretty, both for separate waists and for gowns. The material is one of the most pliable in the world of textiles. Almost anything can be done with it, and pongee gowns are never so beautiful as when they are self-trimmed. One lovely gown was seen at a play the other evening. The waist was cut a little low, and a transparent lace girdle and collar worn. With this exception there was no trimming except yards and yards of shirred cords and little frills of the fabric. The cords formed a pattern down the front of the skirt and around the foot, and the frills followed them. The sleeves were more little capes, slashed on the outside, showing undersleeves of lace. These ended at the elbow in a small puff and a fall of lace."

"The reign of the transparent yoke of gowns seems assured for a long time to come. Exquisite little gowns are for sale in the best shops. They fit perfectly, and, although rather high priced, are hardly to be counted extravagant purchases, since, with care, they can be worn for more than one gown. Another example of lace is found in high, transparent cuffs made of muslin, lace and embroidery. These, too, are expensive, but temptingly dainty."

"Besides the linen starched collar there are innumerable stocks and bands to choose from. A favorite model is the wadded band of heavy linen cloth, covered with padded embroidery. The simplest of these cost from \$1.50 to \$2, so there is no danger of their becoming common. The de-fa-haut girl can make herself any number of these collars for less than half the cost in the shops. At the fancy-work stores sell them ready stamped for embroidery."

"There are certain little details of mourning garb which should not be overlooked. The dress linings should be of rustless silk. When dead black is so unbecoming as to render one ugly before one's family, have all the gowns made with white effects or surpluses to be filled in with white crepe de chine or white muslin. Black and white effects should be handled very carefully, however. For example, white crepe hats should be worn with white gowns in wet weather, and there should be no touch of black about the costume. A white gown with collar and belt of black is half mourning."

"One last word on the subject of mourning: Never wear, as a token of respect to a departed friend, a band of black on the sleeve of a covert coat. This is not correct mourning. In fact it is mourning at all, and it is very ugly.—N. Y. Evening Post.

The World Beautiful.

Lillian Whiting, in Boston Budget.

"When the Self has grown so indifferent to the vehicles in which he dwells that their vibrations no longer affect him; when he can use them for any purpose; when his vision has become perfectly clear; when the vehicles offer no opposition, since the elemental life has left them, and only the life flowing from himself animates them; then the Peace enfolds him and the object of the struggle is attained. Such a one, self-centred, no longer confuses himself with his vehicles. They are instruments to work with, tools to manipulate at his will. He who has realized the peace of the Master, the one who is utterly master of his vehicles, and therefore master of life and death. Capable of receiving into them the tumult of the world and of reducing it to harmony; capable of feeling through them the sufferings of others, but not suffering of his own; he stands apart from, beyond, all storms. Yet is he able ever to bend down into the storm to lift another above it, without losing his own foothold on the rock of the Divine, consciously recognized as himself."—Annie Besant in "A Study of Consciousness."

A very remarkable book by Annie Besant entitled "A Study of Consciousness" has been recently published by the John Lane House of London and New York, and this volume is a valuable contribution to the literature of philosophy and ethics.

Mrs. Besant regards the entire solar system as the field of human evolution, and her study of the unfolding of consciousness in human life through this vast evolutionary space is one of such profound significance and wide scope that it may be truly regarded as an epoch-making book in latter-day literature. Mrs. Besant teaches that the solar system comprises seven great modifications of matter; that on three of these (the physical, emotional and mental) the normal evolution of humanity proceeds. On the two succeeding planes, those of wisdom and power, the distinctly spiritual life—or the life of the spiritual rather than the life of the bodily consciousness begins; whereas the two latter of the seven planes (the sixth and seventh) are so spiritualized that the physical body must be discarded before the individual can enter on them.

"The first five planes," says Mrs. Besant, "form the field of the evolution of consciousness, until the human merges in the divine. The two planes beyond the five represent the sphere of divine activity, encircling and enveloping all, out of which pour forth all the divine energies which

vivify and sustain the whole system. They are as present entirely beyond our knowledge, and the few hints that have been given regarding them probably convey as much information as our limited capacity are the planes of divine Consciousness, wherein the Logos, or the divine Trinity of the Deceiver, the Creator, the Preserver, taining it during its life-period, withdrawing it into Himself at its ending."

When one has achieved the higher evolution of the spiritual self he cannot longer live in the dense atmosphere of any lower plane.

Poetry.

AND YET IT IS.

The eye shall answer:
The tooth as a nail driven
Small tell the story;
Blood runs—the crimson tide
Ebb and flow—beating
On the shores of Time—
Buffs fluff unfurled—
Answer! oh ye sons of men.
Peace—is humanity's cry:
And yet—and yet again
War makes a world of shadows,
Tenuous—blood-purged,
And old—dead—whisper.
Unreeling dead—whisper.
GEORGE HERBERT.

THE OLD MAN'S TROUBLES.

You see th' frost is bound to cum,
An' folks that fixes things around hum,
When sundown gives yer shivers,
An' fusts in things where o' Jack treads,
An' worry over psey body,
Perfectly 'em with kivers.
Yeh ketch a cold yerself some night,
An' 'sillin' round by lantern light,
An' blowin' an' a-sneezein',
An' when yer g'at to bed at last
Yer wife ain't sure th' trouble's past,
An' she sez th' "somethin' 's freezin'".
Confound this thing of hide an' seek,
An' movin' pots nine times a week,
Th' palms an' fusts an' nooses;
It's on the porch—back in th' sun,
Jest keeps a feller on th' run
Jusurin' 'gainst his losses.
Them prickly things! Bad burn them plants
Thet rips an' tears yer coat er pants!
I wish th' frost would bite 'em.
Them catfishes is jest a fad
Ter make men folks a' bloomin' mad
They'd like ter cuss er fight 'em.
Wal, wimmin do on sech affairs,
An' happy 'bout th'ir needless cares,
But I don't seem ter 'saise 'em;
Still I allow this world of ours
Would be some plainer 'bout its flowers,
An' wimmin's hands ter raise 'em.
—Clifford Kane Stout, in Lippincott's.

THE SNOWFLAKE.

You caught with wintry hand
A snowflake from the air,
An' asked what sorrow planned
A star so frail an' rare.
"From what dream an' evil fly
Such dreams diminutive—
Like love," I heard you sigh,
"Too fragile-winged to live!"
Yet while you bent an' gazed
On that cold beauty, dear,
The star you caught and praised,
See, turned into a tear!
An' well you understand
How many and many a star
Life catches with feverish hands,
Swings white, in being fair!
An' we, through sigh and tear
Grow wise and learn again
The love that stoops not, dear,
Is the love that knows no pain!
—Arthur Stringer, in Smart Set.

KNOWING AND TRUSTING.

I think if thou couldst know,
O soul that wilt not let me go,
What lies concealed below
Of burden and of pain,
How just our anguish brings
Nearer those longed for things
We seek for now in vain—
I think thou wouldst rejoice and not complain.
I think if thou couldst see,
With thy dim mortal sight,
How meanings, dark to thee,
Are shadows hiding light;
Truth's efforts, crossed and vexed,
Life's purposes all perplexed—
If thou couldst see them right,
If thou couldst see them clear, all wise
And bright.
And yet thou canst not know,
And yet thou canst not see;
Wisdom and sight are slow
In poor humanity,
If thou couldst trust, poor soul,
In him who rules the whole,
Thou wouldst find peace and rest.
Wisdom and sight are slow, but trust is best.
—A. A. Proctor.

THE FOOL'S PRAYER.

The royal feast was done; the King
Sought out some new sport to banish care,
And to his jester cried: "Sir Fool,
Kneel now, and make for us a prayer!"
The jester doffed his cap and bells,
And stood the mocking court before;
They could not see the bitter smile
Behind the painted grin he wore.
He bowed his head, and bent his knee
Upon the monarch's silken stool;
His pleading voice arose: "O Lord,
Be merciful to me, a fool!"
"No pity, Lord, could change the heart
From red with wrong to white as wool;
The fool must heed his own bad word,
Be merciful to me, a fool!"
"Tis not by guilt the onward sweep
Of truth and right, O Lord, we stay;
Tis by our follies that so long
We hold the earth from heaven away."
These clumsy feet, still in the mire,
Go crushing blossoms without end;
These hard, well-meaning hands we thrust
Among the heartstrings of a friend.
The ill-timed truth we might have kept—
Who knows how sharp it pierced and stung?
The word we had not sense to say—
Who knows how grandly it had rung?
Our faults no tenderness should ask,
The chastening stripes should cleanse them all;
But for our blunders—oh, in shame
Before the eyes of heaven we fall!
Earth bears no balm for mistakes;
Men crown the knave, and scold the fool;
That did his will; but Thou, O Lord,
Be merciful to me, a fool!"
The room was hushed; in silence rose
The King, and sought his gardens cool,
And walked apart, and murmured low,
"Be merciful to me, a fool!"
—Edward Rowland Hill.

THE BROKEN GLASS.

When it was whole, across this mirror fine
What images of strength and beauty passed!
Here was the loveliness of woman gladdened,
Of children, too, and only less divine.
The forms of rocks and trees and glorious shades
Of suns and stars, and wondrously amazed
The journeying clouds; beneath them, oceans
Vast
Unmistakable surge of restless brine.
Tis shattered now, and all these things and
More—
Great thoughts, imaginations strong and free—
Are in this glass reflected brokenly;
Crazed is the dance upon that polished floor,
Poor useless frame that held this sacred trust,
Too soon thou canst not crumble into dust!
—John White Chadwick, in Scribner's.

It singeth low in every heart,
We hear it each and all—
A song of those who answer not,
However we may call;
They throng the silence of the breast,
We see them as of yore—
The kind, the brave, the true, the sweet,
Who wait with us no more.

Be noble! and the nobleness that lies
In other men, sleeping but never dead,
Will rise in majesty to meet their own;
Then wilt thou seek glances in many eyes,
Then wilt thou pure light around thy path be shed,
And thou wilt nevermore be sad and lone.
—Lowell.

Miscellaneous.

A Shipping Day.

We met at a hotel, and I thought her one of
the most charming women I had ever seen.
Refined and almost hyper-sensitive, she struck
me at once as being a woman of breeding and
distinction. Yet on the few occasions, when, as
our acquaintance ripened, I visited her at her
smart and elegantly appointed flat, I felt an
instinctive aversion to the friends and acquaintances
I met there.

Of her people she seldom spoke—her parents
were dead, she told me, and her husband was
abroad, but might be home again at any time.
She was always exquisitely dressed in the latest
fashion, and money seemed abundant with her.
She was an adept shopper, quick at knowing
what she wanted, and quicker still at seeing it,
and I was very glad when she offered to pilot
me through the difficult mazes of the winter
sales.

I am not possessed of a large dress allowance,
and my wardrobe for the coming season depends
somewhat on my successful purchases in sale
times. Mrs. Vereker was just the guide to help
me through. She possessed such perfect taste
that I felt quite safe in her hands.

We sat one evening arranging what we were
to buy.
"It is far better to go now when the first rush
of the sales is over," said Mrs. Vereker. "I
went the first three days myself, but the crowd
was awful, and there are still plenty of things to
be had."

"Did you pick up many things?" I asked.
She laid down the list she was making and
stared at me in dumb amazement. Then her face
cleared.

"Yes, no, not so very much. Let me see; I
bought this tea-coat and some hats and my new
gray coat—that is all, I believe."

She continued the list, and at last I rose with a
sigh of deep relief.
"It's so good of you. We'll go to—first and
then on to Bond street"—I glanced at the list—
"and get the fur at—; they can always be relied
on to really reduce things. I'll call for you at
nine tomorrow, and we'll get Norman to lend me
his motor."

"Yes, do," she said. "I love a motor—we can
go to double the number of shops and spend the
whole morning looking round until we find exactly
what we want."

The next morning I called for Mrs. Vereker
and found her waiting.
"Won't you find that coat too hot?" I asked,
as we reached the first of our shops, and I slipped
off my own heavy motor coat.

"No, I love it," she replied; "I am never too
warm"—and drawing her voluminous skirts
across a pavement luckily clean, she swept into
the shop with her usual graceful, languid air.

I bought my coat and selected some lace, and
went on to—where I chose a few modest and
cheap or two more expensive blouses, then we
went on to a third and last shop. While I was
choosing some ribbon in the multi-colored ribbon
department, Mrs. Vereker said to me:

"I am just going to the handkerchiefs; I will
join you in the fur department—you are going
there?"

"Yes, I shan't be long."

"Nor I," she answered; "I am very tired."

I had finished my purchases when she came back.

"Are you ready?" I am feeling so faint. Do
you mind hurrying?"

"I'm just ready," I said, "this very moment,"
and I put my hand in my muff to get my purse.
There was no purse there, and I gave a cry of
dismay. "Mrs. Vereker!—my purse!—it's gone!"
—and I had £25 in it. I had it a moment ago—
I have put it down in the ribbon department."

"Let me pay," she began—but I interrupted
her.

"Nonsense, it can't be really gone"—and I
almost ran to the ribbon department.

I found the shopwalker and the assistant—but
no one had seen it, and baskets of ribbon were
hastily searched without result.

"It is very dangerous to lay your purse down
in a crowd," said the shopwalker, who knew me
well; "it's only a wonder, madam, you didn't
lose your muff as well."

I went back disconsolate to the fur depart-
ment.

"I'm so awfully sorry to have kept you," I
began, trying not to show my vexation more
than I could help.

"She nodded and rose with haste. "Yes, but
let's go, if you don't mind. You can come back
again and make inquiries. It doesn't matter about
your purse. I have heaps of things and bits
of fur I do not want."

"Yonessence," I said, "as though I should take
yours."

"But, my dear child, I have so many, and
surely a married woman can help a girl; besides
I dare say the purse will turn up."

Pardon me, madam.

A frowning man in a frock coat slid past
me and laid his hand firmly on Mrs. Vereker's
arm at the moment she was stepping into my
motor.

"What is this?" This lady has left all informa-
tion about her purse. She moved her arm
haughtily.

The man's face grew graver.

"Perhaps you will kindly come back with me.
It's your waist, if you please, madam."

There was a faint sneer on the word "madam,"
said Mrs. Vereker, who blushed.

"What do you mean?" she stammered.

"How dare you? Cannot you see I am ill and
wish to go home at once?"

I sprang to her side. "Never mind about the
wretched purse," I said to the man. "This lady
is not well, let her go home, and I will come
back about the purse."

The man took no notice of me, but bending to
Mrs. Vereker said something that made her step
suddenly back and stand by his side. Then, to
my amazement, she stepped obviously from
behind the fur department, and without even looking at me,
she turned into the shop and I followed in be-
wildered dismay.

It was soon over. A few minutes in a private
room and two female searchers had taken the
heavy coat, far heavier now with the lace and
furs and flowers and blouses that were mar-
velously fastened in its ample folds. Under her
cloak and attached to her waist by firm hooks
hung several furs and many pieces of costly lace.
Mrs. Vereker, white as death, showed no sign
of what she must be feeling, but looked in front
of her with a dazed, set face, while I slipped
outside to the waiting man. He was talking to
another shopwalker, who, luckily, knew me well.

"What is it?" I asked. "Is she a thief?"

"A silly question," he answered at once.

"One of the worst shoplifters in London," he
said, laconically, "and yet we've never been
able to catch her. Her husband is doing six
months now for the very same thing. She knew
you were here, madam, and brought you to
shield her."

"But how did you find her out today?" I
asked, aghast, "and what did you see her take?"

"Something that belongs to you," he said, as
he gravely handed me my purse.—K. Nelsh, in
London Daily Mail.

Doubt's Department.

THE LAND OF STORY BOOKS.
At evening, when the lamp is lit,
Around the fire my parents sit,
They sit at home, and talk and sing,
And do not play at anything.

Now, with my little gun, I crawl
All in the dark 'a'ong the wall,
And follow round the forest track
Away behind the sofa back.

There, in the night, where none can spy,
All in my hunter's camp I lie,
And play at books that I have read
Till it is time to go to bed.

These are the hills, these are the woods,
These are my stately antelopes,
And there the river, by whose brink
The roaring lions come to drink.

I see the others far away,
As if in fruitless camp they lay,
And I, like an Indian scout,
Around their party prowled about.

So, when my horse comes in for me,
I time I return across the sea,
And go to bed with backward look
At my dear Land of Story Books.
—Robert Louis Stevenson.

The Little Dreamer.

Elise was one of those dreamy children who
never seem to fit in with the others. She pre-
ferred to play alone. She said that the world
was full of little people who talked to her
when she was asleep, and that this was the
reason why she liked to play by herself. Mrs.
Lane sometimes feared that the child's mind
was not quite right, when she told strange
stories of what she had seen and heard, but she
said little, hoping that the company of the other
children would set the child right.

Back of the farm house ran a wild lot known
as the "pasture." This was forbidden ground
for the children, and therefore, to Elise's imagi-
native mind, peopled with many enchanted
sprites, wishes and fairy godmothers.

One bright June day Elise stood by the brook
and listened to its laughter and murmur of
delight at the pleasures it had had in the for-
bidden land, over the fence. She heard the tall
trees shake their shaggy heads and whisper to
each other as they passed going on below.

Even the wind sighed as it passed over the
land of enchantment into her world. The little
birds called to her as they floated overhead,
urging her to follow them into the land of the
misty. She sank down on the soft grass be-
side the brook and looked up at the sky.

It was a soft indolent blue which filled her
with a vague feeling of satisfaction and yet of
longing. It was so unreal it seemed to lift her
above the earth and wrap her in its soft filmy
fold. Elise gazed intently into the azure depths
above her, and thought, as she lay there, that
the sky was so beautiful.

One could look, and look and see, such
wonderful things without seeing anything at all.
It quite took her breath away as she looked
back to earth again. How easy it would be,
Elise thought, as she lay there, to roll under the
fence over the border, into fairy land. She
would go this once, and see for herself if there
were any witches who carried little children
away as her big brother had said.

When she was once beyond the boundary line
she heard soft and sweet light that it at-
tracted her, and she felt that she was at home.
Elise thought, as she lay there, to roll under the
fence over the border, into fairy land. She
would go this once, and see for herself if there
were any witches who carried little children
away as her big brother had said.

As she wandered on she came to a sparkling
little stream which rippled over the rocks among
the alders. Surely this must be near the palace,
she thought, as she stepped across the stream.
The alders were little more than a row of soft
green moss, which looked like the finest velvet.
Elise could imagine that the fairies held their
councils here for the mounds made such deligh-
tful cushions to sit upon. Bordered the stream
were many small violets, and the alders were
little flocks looking trustfully at her from the
bank, as she dropped her other treasures and
filled both hands with the fragrant little things.

Surely she had reached the land of enchantment
for they whispered to her of other beauties
farther on. She laid her journey as she jumped
from hillock to hillock, now crossing the stream
on stepping stones, now on a limber branch. In
winter she had jumped the spots on the carpet,
playing that there was water between, but to
have real water was much more exciting.

She ran on and on, and the alders, out
among the trees and pines once more. The palace
and the fairies seemed so far away as ever. The
sun no longer winked through the trees, the air
felt a little cool and the birds breathed heavily as
the little wind whistled.

Elise decided that she must go home and hunt
for the palace some other day. She turned about
to see which way to start, but everywhere she
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peared the most open. What was that after?
She must run. The forest was full of evil spirits
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The Horse.

Condition of the Teeth.

It will make no difference how you feed the horse unless the teeth are in good condition. The food is prepared for the stomach by the molars or grinders, twenty-four in number. This mastication or fitting of the food for the action of the stomach juices, is done by a sideways movement, the food being changed from side to side at will.

In most horses this action results in the formation of projections of the grinders, such projections or hooks causing sore mouths, slaving the passage of undigested food, wounds of the tongue and lining of the mouth, etc. The treatment is simple, calling as it does for the use of the float (dental file), the operation consisting in filing down the projections on the outer side of the upper and the inner side of the lower molars. The average work horse will need this attention once a year.—L. A. Merrill.

Plumping a Thin Horse.

Corn meal, bran, cut hay and molasses may be safely be counted on to fatten thin horses more quickly than any other combination, but a feed of dry grain should be given at least once every two days for the sake of variety. Cracked corn with sometimes a feed of oats, if possible, will prove the best for this. Of course, they must not be given more than they will clean up, for then they will get stalled, and it will take some time to get them back to full feed again, and it is here that the eye of the master must govern.

A ration of two pounds of molasses, four pounds of cracked corn and two quarts of bran, with plenty of cut hay, will be found a great flesh-former. The molasses is reduced with water, poured over the cut hay, and then the ground grain is mixed all through the mass. This makes a heavy ration, and so is the same amount of barley meal fed in precisely the same way, but it will do the work. A feed of the grain as described in the morning, one of the boiled barley at night, and a ration of dry ground barley at noon would make an ideal combination for the purpose named. If oatmeal is to be had at anything like a moderate price a little of it may be used, but if it is high it should not be purchased. The corn and the boiled barley may be mixed in equal proportions if desired and fed with the bran and molasses and cut hay. As stated, variety is always good.

Caution is advised in starting horses on full feed. It is better to err on the side of losing a few pounds by going a little slow at first than it is to get into trouble by trying to force the animals too quickly on to the heavy ration. As a rule to go by, it is well to feed per day one pound of grain for every hundred pounds of live weight in the horse. They should have more than this as a general rule when at the height of the feeding period, but each horse should have his ration dealt out to him separately according to his capacity. After a horse is thriving on this amount of grain satisfactorily he should have more if he asks for it, but the danger line is usually not far ahead when that point is reached. But as no real rule of thumb has ever yet been formulated that would cover all cases, the feeder must accept this as a basis, and then work to hand beyond it as occasion may require.

Roughage of some sort, of course, the horses must have, but when they are getting plenty of cut hay moistened with treacle water, they do not require much in the line of hay. A pound of hay per hundredweight of live weight is a good rule to follow, and what is fed up into half or three-quarter-inch lengths should be deducted from the general amount allowed.

From a Horseman's Note Book.

You can get no more power from a horse than you give him in the food. The horse is man's invaluable helper and should be treated as a friend. The best drivers talk much to their animals.

Your horse needs water oftener than you. A sandy or muddy road doubles the work. A rise of only one foot in ten doubles the draft.

Shying is very often caused by abuse, overloading or tight harness. The whip costs more than it saves. Put it away.

Wide tires save much horse power. Quiet and patient drivers are worth twice as much as any others.

Your horse intends to please you, but does not always know your wishes.

Dark or damp stables cause low spirits and various diseases.

Axle grease pays one thousand per cent. profit.

A practical and educational example of American forestry-lumbering is being worked out by the Bureau of Forestry in the Chippewa Indian Reservation, Minnesota. It has been the general policy of the government to sell its timberlands at \$2.50 an acre. In these Indian lands, however, negotiated at some 175,000 acres, the plan was suggested of selling the timber—not the land—to the highest bidder, the trees to be cut under the direction of the Government Forester, leaving at least five per cent. of the timber standing to insure reforestation. Some \$15 an acre is being realized for the land remains in the Government and under the lumbering regulations prescribed by the Bureau of Forestry the integrity of this



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A safe, speedy and positive cure for

Cuts, Splints, Soreness, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMANE REMEDY, Gombault's Caustic Balsam is safe, speedy and positive cure for all the above mentioned ailments. It is sold by all druggists, or sent by mail, charged by express, with full directions for its use. Address: THE LAWRENCE-LEWIS COMPANY, Concord, N.H.



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